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14. ABSTRACT

Vice Admiral James B. Stockdale holds a unique position in the roster of distinguished American naval officers of the last century. In "Reflections on the Stockdale Legacy," Martin L. Cook, current holder of the Stockdale Chair of Professional Military Ethics at the Naval War College, vividly recalls the extraordinary moral courage and leadership displayed by Stockdale during his nearly eight years of captivity in a North Vietnamese prison camp.

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Book Reviews

Vice Admiral James B. Stockdale holds a unique position in the roster of distinguished American naval officers of the last century. In "Reflections on the Stockdale Legacy," Martin L. Cook, current holder of the Stockdale Chair of Professional Military Ethics at the Naval War College, vividly recalls the extraordinary moral courage and leadership displayed by Stockdale during his nearly eight years of captivity in a North Vietnamese prison camp. But the core of the Stockdale legacy, he maintains, lies rather in Stockdale's deep intellectual engagement with the classic literary and philosophical works of the Western tradition and in his appropriation of those works for the professional education of military officers. The famous course developed by Stockdale while President of the Naval War College some thirty-five years ago, "The Foundations of Moral Obligation," continues to be offered in Newport to limited numbers of students. But, Cook believes, there is room throughout today's Navy for a rediscovery of the admiral's broader insights concerning character development in our officer corps. (Additional discussion of ethics in the Navy's officer ranks is offered in an article by Captain Mark F. Light appearing later in this issue.)

Two articles offer broad perspectives on the future of the U.S. Navy in the emerging strategic environment. In "Naval Operations: A Close Look at the Operational Level of War at Sea," Wayne Hughes explores the concept of operational art in a maritime context, stressing the importance of operational or campaign planning in testing and validating new strategic concepts. Although formal adoption of the operational-art construct is a relatively recent event in the Navy, Hughes points out that the prominence long given to logistics in naval thought and planning in fact constitutes long-standing informal acknowledgment of a dimension of naval warfare distinct from strategy and tactics. Robert B. Watts, in "The New Normalcy: Sea Power and Contingency Operations in the Twenty-First Century," makes the case that the Navy needs a better appreciation of the nature of major crisis contingencies in the contemporary world that invite or require naval responses. Mass migrations, natural disasters, and the like, he argues, provide increasing challenges in the transparent information environment of today, and the Navy should rethink the way it prepares for and conducts such operations. Captain Watts, USCG, currently holds the U.S. Coast Guard chair at the National War College. Captain Hughes, USN (Ret.), is on the faculty of the Department of

Operations Research at the Naval Postgraduate School. He has recently stepped down from the Advisory Board of the Naval War College Press, where he has served with distinction for the past quarter-century.

One of the great (if insufficiently noticed) success stories in the U.S. Navy of recent years is ballistic-missile defense. In "The Aegis BMD Global Enterprise: A 'High End' Military Partnership," Brad Hicks, George Galdorisi, and Scott C. Truver comprehensively survey this history and the current state of play in the increasingly BMD-capable fleet, with particular attention to the growing cooperation between the U.S. and allied navies in this strategically vital arena. Rear Admiral Hicks, USN (Ret.), commanded an Aegis cruiser and has served as Program Director, Aegis BMD. George Galdorisi and Scott Truver are frequent contributors to this journal.

Two articles that follow take up the issue of airpower, albeit in very different strategic contexts. Veteran airpower analyst Benjamin S. Lambeth offers in "Learning from Lebanon" a detailed and authoritative account of Israel's 2006 monthlong conflict with Hezbollah in Lebanon, focusing on the question whether the Israelis' lackluster performance in this mini-war can be traced to an unwarranted confidence on their part in the efficacy of airpower in coercing a determined adversary. He concludes that the Israel Air Force in fact performed its role as well as could have been expected and that Israel's overall failure owes more to its underestimation of Hezbollah, the failure of its leadership to undertake a serious strategic assessment of the situation at the outset, the lack of preparedness of Israel's ground and air forces to operate together in a mid-intensity conflict, and perhaps most of all, bungled strategic communications. In "China's Aerospace Power Trajectory in the Near Seas," Daniel J. Kostecka traces the development of the maritime air capabilities of the Chinese People's Liberation Army Navy from a narrow concern for coastal defense to the increasingly expansive reach it has acquired in recent years—extending, as Chinese spokesmen have themselves said, not only out to but beyond the "first island chain." He discusses particularly the likely role of China's newly acquired aircraft carrier, while also calling attention to continuing weaknesses the Chinese continue to face in less conspicuous areas, such as tankers, rotary-wing aircraft, and airborne antisubmarine warfare. Daniel Kostecka is an analyst for the Department of the Navy.

Further focus on China is provided by Scott D. McDonald, Brock Jones, and Jason M. Frazee in their "Phase Zero: How China Exploits It, Why the United States Does Not." The authors (serving military officers in the Marine Corps, Army, and Air Force, respectively) argue that traditional Chinese strategic culture embodies a very different understanding of "phase zero"—that is to say, preconflict, or "shaping"—operations from the one that has emerged in the U.S. military over the last several years. They argue that the American focus has been primarily on security cooperation and influencing third parties, whereas the

Chinese concept more seamlessly bridges conflict and nonconflict environments and is squarely focused on bending the will of the adversary. The authors argue the United States would be well-advised to rethink its doctrine and practices in this area from this perspective.

Finally, Mark F. Light takes on "The Navy's Moral Compass: Commanding Officers and Personal Misconduct." Based on a careful analysis of historical metrics as well as personal interviews with senior naval officers, Light's assessment concludes that current rates of dismissal of commanding officers for reasons of personal misconduct are unsustainable and call for a fundamental rethinking of Navy education, training, and promotion policies. In particular, he argues for a revised format for Navy officer fitness reports that focuses more explicitly on qualities such as character and integrity. Captain Light, USN, a graduate of the Naval War College, currently serves in the Department of Command, Leadership and Management at the Army War College.

NEW FROM THE NAVAL WAR COLLEGE PRESS

New Interpretations in Naval History: Selected Papers from the Sixteenth Naval History Symposium Held at the United States Naval Academy, 10–11 September 2009, edited by Craig C. Felker and Marcus O. Jones, is available for sale from the Government Printing Office online bookstore, at bookstore.gpo.gov/. This book, the twentieth in our Historical Monograph series (sponsored by the Maritime History Department), is a selection of the twelve best papers presented at that symposium, one of the most widely known annual forums for naval and maritime history. The contributors are all professional historians; the works reprinted, which range from the U.S. colonial era through the 1960s, represent the vitality of recent study in naval and maritime history.

THE *REVIEW* ON E-READERS

Beginning with the last (Spring 2012) issue, the *Naval War College Review* is being posted on our website not only in separate articles, essays, and departments but also as a whole issue (with cover, in color, at low file size) for convenient downloading to any e-reader that can display "PDF" files. It is readable, for example, on iPads and Droids, in a variety of applications (Kindle, GoodReader, iBooks, and others). Issues before our redesign in 2000 are already posted as scanned whole issues.

IF YOU VISIT US

Our editorial offices are now located in Sims Hall, in the Naval War College Coasters Harbor Island complex, on the third floor, west wing (rooms W334, 334, 309). For building-security reasons, it would be necessary to meet you at the main entrance and escort you to our suite—give us a call ahead of time (841-2236).

REFLECTIONS ON THE STOCKDALE LEGACY

It is a great pleasure and an honor to be invited to deliver this year's Stockdale Lecture. When I consider those who have preceded me in giving this annual lecture, I am truly humbled to be added to that roster. I am also honored to hold an academic chair at the Naval War College that bears Admiral Stockdale's name, so it is especially fitting that I offer some reflections on what my chair's namesake means to me, but more importantly for the Navy.

I am relatively new to the Navy and am still learning its distinctive language and culture. When I went to work for the Navy, one thing struck me immediately —the large number of activities and institutions that bear Admiral Stockdale's name. Here is a list of the ones I know about, and I'm sure it's only partial:

• This annual Stockdale Lecture at San Diego.

• The Stockdale Center for Ethical Leadership at the U.S. Naval Academy, created as a nexus for addressing questions of ethics and character at the Academy.

• The Stockdale Chair of Professional Military Ethics at the Naval War College—my own position.

• The "Stockdale course" at the Naval War College. This is a course I teach with Dr. Tom Gibbons each trimester at Newport. It was originally created by Admiral Stockdale himself when he became the President at the College. The course is called Foundations of Moral Obligation, and in it we study major philosophical traditions of ethics. Admiral Stockdale, as I'm sure many of you know, wrote quite a bit about his belief that his study of philosophy at Stanford—in particular the Roman Stoics—was fundamental to his ability to survive the POW experience.

• The Stockdale Group at the Naval War College, which is a group of senior-class students doing research on ways to improve Navy leader development.

- The Annual Stockdale Leadership Award, two of which are given annually for outstanding leadership, one in the Atlantic Fleet and the other in the Pacific.

I think the most remarkable thing about this list is the underlying point of continuity—that every major institution and activity explicitly dedicated to questions of ethics and leadership in the U.S. Navy is named after James Bond Stockdale. Indeed, this fact is sometimes a source of considerable confusion. People who see my title, for example, often assume I must be at the Stockdale Center at Annapolis. I'm sure the various other Stockdale institutions and personnel encounter similar confusion.

Perhaps naming such things after Stockdale has been the case so long that we no longer pause to reflect on what a remarkable fact it is. Why would the Navy's culture appear to take it as obvious that anything to do with ethics and leadership should bear the Stockdale name? Of course Admiral Stockdale was a great Navy leader. But there are many great leaders in the history of the Navy. Couldn't even one of the things I mentioned be named after William F. Halsey, Raymond A. Spruance, Chester W. Nimitz, Richmond K. Turner, Stephen Decatur, or Oliver Hazard Perry?

Stockdale is distinct from those other leaders in that much of his courageous leadership occurred while he was a prisoner of war. Furthermore, his character and leadership were tested in extreme circumstances of torture and suffering. Those actions and accounts are noble and inspirational. There is no doubt that Admiral Stockdale exhibited exemplary strength of character and an unbreakable commitment to honor that is to be admired and celebrated. But there's little reason to take the leadership and character revealed in those circumstances and make them somehow normative for naval leadership in general. Great naval leadership will be required in circumstances like his only very rarely (thank God!).

Indeed, Stockdale's last true command was in the grade of commander, as a "CAG," a carrier air group "boss." Between his nearly eight years as a POW and at least one more year repairing his body and writing reports and filing charges against prisoners he believed had violated the Code of Conduct, he was completely outside normal Navy life for nearly ten years. Wouldn't it stand to reason that if we were to look for models of leadership to which future Navy leaders should aspire, Halsey or Spruance would be better and more natural choices, because their leadership under fire was tested in major naval battles? So if it's neither the unique quality of his leadership nor his exemplary conduct as a leader of prisoners of war, what is it about Stockdale that makes it all but self-evident that anything to do with ethics, leadership, and character in the Navy should bear his name?

I believe that ultimately neither his actual leadership in command nor even his strength of character (although those both give credibility to his other work)

explain this. I believe his name is associated with leadership and ethics more because his of post–prisoner of war activities. No other great Navy leader and no other former prisoner of war went on to write, think, and speak as widely and deeply about the meaning of all he had been through as did Stockdale. I believe it is the scholar side of the sailor-scholar Stockdale was that makes him unique among great Navy leaders.

In recognizing Stockdale as an exemplar of a kind of military virtue, I believe the Navy is implicitly recognizing the importance of the reflective, self-aware, and (dare I say?) philosophical dimensions of the military profession he exemplified and advocated. It is fitting that Stockdale's collection of speeches and essays, portions of which we read every trimester for the first lesson of the Stockdale Course, is entitled *Thoughts of a Philosophical Fighter Pilot.*

This evening I hope to draw out some of the major threads of Stockdale's philosophy and attempt to apply them to issues in military leadership development now and for the future. In the end I will argue that although through the recognition the Navy gives Stockdale it acknowledges some very important truths about what's essential in leadership, in practice the Navy and the other services largely fail to make the adjustments and changes in culture and education necessary to make those truths integral to leader development.

Stockdale's written work returns again and again to a few central themes. The first of these he got from the Stoics—that life is not fair. On the face of it, this sounds trivial or banal. But as one thinks more deeply, the point is profound. The central point of Epictetus' *Enchiridion* (the Stoic book that most influenced Stockdale) is that one must reflect deeply on one crucial point, the distinction between what is truly something one can control and all the rest, which one cannot. That seems a blinding flash of the obvious, until you see where Epictetus goes with it. In the end, all one controls is one's inner reaction to events and one's own actions. What one ultimately cannot control is what those events are. As the first sentence of the book reads, "Some things are in our control and others not. Things in our control are opinion, pursuit, desire, aversion, and, in a word, whatever are our own actions. Things not in our control are body, property, reputation, command, and, in one word, whatever are not our own actions." It was this central idea that was vital to Stockdale as a prisoner. Every external aspect of his life was under the control of others. What was done to him and to the other POWs was not "fair"—they all knew the Geneva Convention requirements, and it would be easy to obsess about the Vietnamese flagrant violations of international law.

Further, Stockdale had been flying directly overhead when the second supposed engagement with the destroyer *Turner Joy,* which led to the Gulf of Tonkin Resolution and therefore the U.S. involvement in the entire Vietnam

War, occurred. As he later said, "I had the best seat in the house to watch that event, and our destroyers were just shooting at phantom targets—there were no PT boats there. . . . There was nothing there but black water and American fire power." So to add a still deeper level of unfairness to his situation, Stockdale knew *for a fact* that the legal justification for the war itself, and therefore for the chain of events that had got him where he was as a prisoner, was completely false because the supposed attack had never taken place. He, of course, had been ordered not to disclose this fact, and one of his greatest fears was that under torture he might.

When I thought about this somewhat jarring historical revelation, I realized Stockdale exemplifies an absolutely foundational virtue required and expected of all American soldiers, sailors, Marines, and airmen—absolute clarity about their roles in a constitutional democracy.

He was a loyal and diligent servant of the American Republic. He wrote in later years that he considered the war both unjustified and poorly conducted, but his clarity about his role is worthy of our reflection—he knew he didn't make policy. He reported what he saw accurately and wrote later of the guilt felt by those who, under pressure, gave false reports of an attack. But having given his honest report, he was crystal clear that he was an agent of policies (even foolish ones) he had not chosen and, unless the orders were illegal, it was not within his purview to evade or modify them.

Perhaps this passage from Epictetus came to his mind: "Remember that you are an actor in a drama, of such a kind as the author pleases to make it. If short, of a short one; if long, of a long one. If it is his pleasure you should act a poor man, a cripple, a governor, or a private person, see that you act it naturally. For this is your business, to act well the character assigned you; to choose it is another's." For Stockdale, the fundamental military virtue is the tough-mindedness Epictetus requires. One passage in Epictetus consistently shocks my students in the Stockdale course at Newport:

> With regard to whatever objects give you delight, are useful, or are deeply loved, remember to tell yourself of what general nature they are, beginning from the most insignificant things. If, for example, you are fond of a specific ceramic cup, remind yourself that it is only ceramic cups in general of which you are fond. Then, if it breaks, you will not be disturbed. If you kiss your child, or your wife, say that you only kiss things which are human, and thus you will not be disturbed if either of them dies.

I suppose what shocks my students is the equation of loss of wives and children with broken crockery (although we all know people who have been undone by as little as a broken cup, too). But anyone who has lived long enough to have experienced loss, failure, and guilt knows there's a profound truth here—that

such disasters destroy some people, while others find the inner resilience to pull up their socks and move on. I believe Stockdale would ask us what we're doing to develop such inner resilience in our personnel.

In the face of unfairness, Stockdale's major lesson is that regardless of the situation in which one finds oneself, one must be brutally realistic about what one can and cannot control. His Medal of Honor citation reads as follows:

> Recognized by his captors as the leader in the Prisoners' of War resistance to interrogation and in their refusal to participate in propaganda exploitation, Rear Adm. Stockdale was singled out for interrogation and attendant torture. . . . Stockdale resolved to make himself a symbol of resistance regardless of personal sacrifice. He deliberately inflicted a near-mortal wound to his person in order to convince his captors of his willingness to give up his life rather than capitulate. . . . [T]he North Vietnamese . . . , convinced of his indomitable spirit, abated in their employment of excessive harassment and torture toward all of the Prisoners of War.

There is one crucial Stoic observation to make about this citation—that while Stockdale's actions achieved a good result, in that they caused the Vietnamese to change their treatment of prisoners, he didn't do what he did because he counted on that outcome. The outcome he could not control. He did it because of his own internal sense of duty, regardless of the outcome. That he could control. On another occasion he was asked who didn't make it out of Vietnam. He replied as follows:

> Oh, that's easy, the optimists. Oh, they were the ones who said, "We're going to be out by Christmas." And Christmas would come, and Christmas would go. Then they'd say, "We're going to be out by Easter." And Easter would come, and Easter would go. And then Thanksgiving, and then it would be Christmas again. And they died of a broken heart. . . . This is a very important lesson. You must never confuse faith that you will prevail in the end—which you can never afford to lose—with the discipline to confront the most brutal facts of your current reality, whatever they might be.

So what are the implications for today's military leaders if we take Stockdale seriously to heart? I believe we'd have to rebalance the focus on technical and operational expertise (which is where almost all our focus is today) with explicit discussion and development on the seemingly "soft" (dare I say philosophical?) internal intellectual and personal development of our people. In crisis, it's not technical knowledge or operational experience alone that sees us through. It's inner resilience and strength. Stockdale has very clear ideas about how best to develop that strength.

Stockdale himself took the initiative to study philosophy "on the side," when the Navy sent him to Stanford for a two-year course in history and economics to prepare him for future responsibilities in policy making. He grew frustrated with

his courses in those subjects. He noticed that whenever he asked a question that seemed genuinely interesting to him, the professor would cut off the conversation, saying, "Now we're getting into philosophy." That motivated Stockdale, against the advice of his adviser, to cross over to the philosophy department and begin course work there.

When he departed Stanford, his favorite professor of philosophy gave him a copy of the *Enchiridion.* He admits that when he looked at it his first reaction was that it was totally irrelevant to him as a man of action, but he read it out of respect for his professor. Only later, in the crucible, did Epictetus' words come to life and become his salvation. Nobody in the Navy and nothing in the Navy's concept of how to develop officers had ever so much as suggested that he have the very educational experience he credits with saving his life. Nothing the Navy had given, offered, or required of him as a developing officer did anything to give Stockdale the foundation his character needed to be ready to endure what would be required of him. That was entirely his initiative, undertaken at personal cost of additional work and effort for self-development.

When in busy military deployments do we find time for professional development beyond focusing on technical mastery? When would the captain of a ship invite the wardroom to a discussion of Stoicism over dinner? When, for example, do Surface Warfare Officers (SWOs) during their division-officer tours lift their horizons beyond getting their formal SWO qualification to think more fundamentally about officership and their deep self-understanding as military professionals?

I think Stockdale would suggest it shouldn't be a crazy suggestion that these things happen. Indeed, he would fear that officers who lack such inner depth, regardless of their technical and operational skill, are missing something fundamental, perhaps something that might save their lives or allow them to maintain their integrity under extreme pressure. He might, for example, look at the Army's great efforts to reground the professional ethic through the Center for the Army Profession and Ethics (see its website at www.cape.army.mil) and the Army's sustained attention to issues of ethics and professionalism in recent years as something the other services would benefit from studying and emulating.

In one chapter in *Thoughts of a Philosophical Fighter Pilot,* Stockdale recounts a conversation he had with an NBC executive who afterward became a lifelong friend. The executive criticized the usual press approach to political candidates, quizzing them on their positions on specific issues of the day. The executive went on to say that because those issues shift rapidly, the opinions of the moment would in the end be meaningless as a guide to what politicians would actually do in office. Stockdale reflected back on the conversation (with which he heartily agreed):

Character is probably more important than knowledge. . . . Of course, all things being equal, knowledge is to be honored. . . . But what I'm saying is that whenever I've been in trouble spots—in crises (and I've been in a lot of trouble and in a lot of crises) —the sine qua non of a leader has lain not in his chesslike grasp of issues and the options they portend, not in his style of management, not in his skill at processing information, but in his having the character, the heart, to deal spontaneously, honorably, and candidly with people, perplexities, and principles.*

This invites the question of how we appropriate the Stockdale legacy. Where do we consciously and explicitly strive to develop this resilient, self-aware, and philosophically informed character in our officers? Is the weight of the technical and operational knowledge essential to successful operation of ships, aircraft, and submarines, companies, and battalions being balanced with attention to self-awareness, character, and the clarity of philosophical thought Stockdale here stresses?

There is also a danger in raising the necessity of character development in the "can-do" culture of a military service. If the question is taken to be serious, there is the risk of a typical military response—establishing a new program to ensure that character is developed. To some degree, all of the service academies have in fact done this, creating "character development" bureaucracies that grow like weeds and generate motivational-speaker-level events of dubious value.

I doubt that Stockdale would have much use with those programmatic responses. He would say what is required is exposure to deep thought and internalized self-reflection of the sort that only intellectually rigorous examination can provide. While motivational-speaker character development can provide brief and perhaps exciting passing moments, what Stockdale is looking for runs far deeper.

It is beautifully described in Plato's discussion of the training of the Auxiliaries in his ideal Republic. The Auxiliaries are where the virtue of courage resides in the Republic. They are that part of the city that takes to the field to defend it. They are the professional military. Plato says they must have internalized utterly unshakable convictions that they are to be obedient to the laws of the lawmakers, regardless of pain, pleasure, desire, or fear. To achieve this, much more than motivational speaking will be required. Plato describes it as follows:

The dyers, when they want to dye wool purple, first choose from all the colors the single nature belonging to white things; then they prepare it beforehand and care for it with no little preparation so that it will most receive the color; and it is only then that they dye. And if a thing is dyed in this way, it becomes color-fast, and washing either without lyes or with lyes can't take away its color. . . .

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* James B. Stockdale, *Thoughts of a Philosophical Fighter Pilot* (Stanford, Calif.: Hoover Institution Press, 1995), pp. 31–32. All subsequent page references are to this work.

> To the extent of our power, [we are] doing something similar when we selected the soldiers and educated them. . . . [T]hey should receive the laws from us in the finest possible way like a dye, so that their opinion about what's terrible and about everything else would be color-fast because they had gotten the proper nature and rearing, and their dye could not be washed out by those lyes so terribly effective at scouring: pleasure . . . and pain, fear, and desire. . . . This kind of power and preservation, through everything, of the right and lawful opinion about what is terrible and what not, I call courage. (*Republic,* Book IV)

Stockdale, I'm pretty sure, would have embraced that definition of courage from Plato: "This kind of power and preservation, through everything, of the right and lawful opinion about what is terrible and what not." What is the process of dyeing the soul so deeply that it gains that power? The first and critical aspect of the Stockdale legacy is to invite us to ask that question deeply.

Another of Stockdale's recurrent themes is the importance of what he calls at various times "the pressure cooker," or the "crucible." He worried that plebe year at Annapolis had gotten too easy because of misguided attempts to reduce stress on midshipmen. He feared that education had lost some of the rigor necessary for knowledge to seep deeply into the soul.

Joseph Brennan, a philosopher who taught the first iterations of the Stockdale course at the Naval War College with Stockdale, wrote an essay in which he reflected on their collaboration. He says they began the course with a concept central to Stockdale's thought: "The alchemical transformation that may occur when a human being is subjected to intense pressure with a crucible of suffering of confinement" (p. 171). It is important to note that Stockdale did not especially want to call this course an "ethics" course. Indeed, he was quite skeptical about the explosion of ethics courses being offered in business, dental, and medical schools throughout the land. As Brennan put it, "He did not want his course to be the military equivalent of what he called 'ethics for dentists'" (p. 170). The danger, he feared, was that ethics would be reduced to a branch of psychology. Instead, he deeply believed that only rigorous examination of the classics of the humanities would provide the real depth required. To read deeply in Plato, Aristotle, Kant, and Nietzsche was to show students that "much of what goes by the name social science serves up ideas expressed earlier and better in classical philosophy and modern literature" (p. 170).

If Stockdale is right about this, I think it poses a fundamental challenge to the culture of military education at virtually all levels. Let me cite the example I know best from my time at the Air Force Academy. The Air Force Academy (like all the academies, to various degrees) is, at its heart, an engineering school. As an extreme example, I once got into a fairly long argument with the Air Force officer charged with reporting the research being done by the Academy's faculty.

The metric he insisted on using was that only externally funded research projects (all of which fell in the engineering and science departments) even counted as research. I pointed out repeatedly that, using that metric, no publications in philosophy, literature, history, or social science would ever even appear in the "research report" of the institution. I lost the argument, by the way.

To take another example: cadets sharply distinguish two types of courses. Some are "real" subjects—math, science, and engineering. All the rest are "fuzzies" —not a term of approbation. Fuzzies include history, literature, and philosophy —not to mention art or music.

Or to work farther down the career path, what role do subjects in the humanities play in Professional Military Education curricula at all levels? Even if we leave aside the purely technical schools, which focus on teaching specific skills, there is virtually nothing. I taught in a department at the Army War College called Command, Leadership, and Management. There were two whole lessons dealing with ethics in the curriculum. But the real heart of the department was focused on the Defense Department budget process, mind-bogglingly difficult charts on the planning, budgeting, and execution process; various "flavor of the month" management theories; and notional-force-structure planning exercises.

I don't mean for a minute to suggest these are not things senior officers need to know; many of these students would be managing those complex systems in the not-too-distant future. But the results-oriented and pragmatic mind-set cultivated by military culture is generally impatient with anything that isn't immediately and practically relevant.

By contrast with that approach, consider Stockdale's reflections on the Stockdale course's effects on students:

> We studied moral philosophy by looking at models of human beings under pressure, their portraits drawn from the best materials we could find in philosophy and literature. The professional implications for military men and women followed. We did not have to draw diagrams [or, one might add, PowerPoint slides]; the military implications came up naturally in seminar discussions. (p. 171)

These seem to me the main elements of the Stockdale legacy—the importance of a deeply reflective self-understanding, grounded in a clear-eyed and realistic appreciation of oneself and the world in which one acts. It stresses the central importance of character and, indeed, its primacy over technical knowledge and practical know-how. Most counterculturally of all for the military, Stockdale asserts that serious reading of the humanities is the single most important means to developing those attributes, because only such reading addresses fundamental human questions with rigor and depth.

If we were truly to take Stockdale seriously and live up to the intuitions that have caused so many Navy institutions to borrow his name and authority, we

would have to rethink a great deal about military culture, military education, and officer development. Or in the end does Stockdale play for the Navy and the other services the role of so many other saints and heroes throughout history, that of objects of veneration but not examples to be followed, not people whose teachings we truly heed? Are we content to relegate Stockdale to portraits on the wall, plaster statues of the saint, and eponymous programs that only scratch the surface? I submit we do him a great disservice if we don't take seriously the thoughts of this deeply philosophical fighter pilot.

For those in the Reserve Officer Training Corps and junior officers who are in the audience tonight, a special word. You are at the threshold of self-sacrificial service to our nation. When you swear your oath to the Constitution of the United States, you give up a good deal of moral autonomy and commit to discipline your mind and body to be prepared to meet the unpredictable, but certain, challenges your profession will send your way. Stockdale's message to you would be, don't sell yourselves short. Don't be content to remain on the surface and focus only on knowledge and skill. His example should lead you to take every opportunity (and make them if you aren't given them) to think deeply and broadly. When someone tells you, "Well, we're getting into philosophy here," don't take that as a reason to get back to the practical. Take it as the challenge to press right on. As Socrates put it twenty-five hundred years ago, "The unexamined life is not worth leading." And as the words over the entrance to the Delphic oracle reminded everyone in the classical world, γνῶθι σεαυτόν—*gnothi seauton,* "know thyself."

I'd like to close with Admiral Stockdale's description of his parachute descent into seven and a half years of hell:

> On September 9, 1965, I flew at 500 knots right into a flak trap, at tree-top level, in a little A-4 airplane—the cockpit walls not even three feet apart—which I couldn't steer after it was on fire, its control system shot out. After ejection I had about thirty seconds to make my last statement in freedom before I landed in the main street of a little village right ahead. And so help me, I whispered to myself, "Five years down there, at least. I'm leaving the world of technology and entering the world of Epictetus." (p. 189)

The "training" that saved Stockdale's life was a slim volume written by a Roman slave-philosopher in the second century. What would it mean for Professional Military Education if we thought deeply about Stockdale's message? And even more importantly, what would it mean for all of you who wear the uniform of the United States of America?

MARTIN L. COOK

Dr. Cook is the Admiral James B. Stockdale Professor of Professional Military Ethics in the College of Operational and Strategic Leadership at the Naval War College, in Newport, Rhode Island. Since earning his PhD at the University of Chicago, he has taught also at several colleges and universities, as well as the U.S. Air Force Academy and the U.S. Army War College. Dr. Cook became the Stockdale Professor at the Naval War College in 2009. The present text is a close adaptation of his remarks as delivered.

Rear Admiral Christenson became the fifty-third President of the U.S. Naval War College on 30 March 2011. The fourth of six sons of a Navy Skyraider pilot and a Navy nurse, he graduated from the U.S. Naval Academy in 1981.

At sea, he commanded USS McClusky *(FFG 41), Destroyer Squadron 21 in USS* John C. Stennis *(CVN 74), Carrier Strike Group 12, and the USS* Enterprise *(CVN 65) Strike Group. He most recently served as President, Board of Inspection and Survey. He also served as the antisubmarine warfare officer and main propulsion assistant aboard USS* Cook *(FF 1083); as aide to Commander, Cruiser Destroyer Group 1 in USS* Long Beach *(CGN 9); as weapons officer aboard USS* Downes *(FF 1070); as Destroyer Squadron 21 combat systems officer, in USS* Nimitz *(CVN 68); and as executive officer of USS* Harry W. Hill *(DD 986). He deployed eight times on seven ships, twice in command of McClusky.*

Ashore, he commanded the Surface Warfare Officers School in Newport, and as a new flag officer he served as Commander, Naval Mine and Anti-submarine Warfare Command, Corpus Christi, Texas. He also served at the U.S. Naval Academy as a company officer, celestial navigation instructor, assistant varsity soccer coach, and member of the admissions board; at Headquarters, U.S. Marine Corps, in the Strategic Initiatives Group; and on the Joint Staff, in J5 (Strategic Plans and Policy) and as executive assistant to the assistant chairman.

He graduated with distinction and first in his class from the Naval War College, earning his master's degree in national security and strategic studies. He was also a Navy Federal Executive Fellow at the Fletcher School of Law and Diplomacy.

Rear Admiral Christenson has been awarded the Defense Superior Service Medal, the Legion of Merit (five awards), the Meritorious Service Medal (two awards), the Navy Commendation Medal (five awards), and the Navy Achievement Medal.

All things are ready, if our minds be so.

SHAKESPEARE, *HENRY V,* ACT 4, SCENE 3

I HAVE BEEN THE PRESIDENT FOR A FULL YEAR NOW, and what a wonderful year it has been.

They say the best time for war colleges is after wars have ended and when budgets are headed downward. It certainly feels true in Newport.

There is an urgency to innovate. Under the leadership of Fleet Forces Command, the Navy and Marine Corps "got the band back together" and executed an ambitious amphibious exercise, BOLD ALLIGATOR. The last issue of the *Naval War College Review* had a superb article by our Professor Don Chisholm entitled "A Remarkable Military Feat: The Hungnam Redeployment, December 1950."

The Navy Warfare Development Command, now completely relocated from Newport to Norfolk and in an amazing new building, has not only maintained its natural relationship with Newport but has begun to build strong relationships around the world in the fleets. Our War Gaming Department maintains a full calendar in Newport but is a frequent collaborator in Norfolk.

There is an emphasis on history. Not only did the War of 1812 give us our national anthem, but in it our Navy was reborn. Everywhere you read, you see the Navy remembering that amazing struggle. Our Professor Kevin McCranie's recently published *Utmost Gallantry: The U.S. and Royal Navies at Sea in the War of 1812* tells the story well.

There is a commitment to education. Despite the significant fiscal challenges, the Navy remains committed to education. The Advanced Education Review Board meets frequently in Washington; the Naval War College here in Newport, the Naval Postgraduate School in Monterey, and the Naval Academy in Annapolis have visibility and support at the very highest level of leadership in our Navy.

There is a realization that our military must never let up in its effort to be the most professional military in the world. Also in the last issue of the *Review* were two outstanding articles on civil-military relations. The Chairman of the Joint Chiefs of Staff, General Martin Dempsey, recently told our students very sincerely how important the profession of arms was to him. In fact, in May it will be my great honor to spend two days at Duke University studying that very topic with some of our nation's best. In this election year we are all reminded of our obligation to be an example.

And the Navy has asked the War College to develop a Leadership Continuum. Long held up as an example of how to develop independent, courageous, victorious leaders, the Navy nevertheless wants to be even better. That our College of Operational and Strategic Leadership has such an important direct role to play in that assignment has energized faculty and students alike.

I want to thank all the people in Newport and around our Navy who have made this the best job in the world. To all our neighbors over the past thirty years my family and I say thank you for making this the best career we could ever dream of. We have come into your lives and quickly gone away again, wherever we have served, but you have always made us proud to serve you and call you friends.

JOHN N. CHRISTENSON
Rear Admiral, U.S. Navy
President, Naval War College

Captain Hughes is a designated professor in the Department of Operations Research at the Naval Postgraduate School, Monterey, California. He is a graduate of the U.S. Naval Academy and holds a master of science degree in operations research from the Naval Postgraduate School. On active duty he commanded a minesweeper and a destroyer, directed a large training command, served as deputy director of Systems Analysis (OP-96), and was aide to Under Secretary of the Navy R. James Woolsey. At the Naval Postgraduate School for twenty-six years, he has served in the Chair of Applied Systems Analysis, as the first incumbent of the Chair of Tactical Analysis, and as dean of the Graduate School of Operational and Information Sciences. Captain Hughes is author of Fleet Tactics and Coastal Combat *(2000),* Fleet Tactics: Theory and Practice *(1986), and* Military Modeling *(1984), and he is a coauthor of* A Concise Theory of Combat *(1997). He served as a member of the Naval War College Press Advisory Board for over twenty-five years, until 2012.*

NAVAL OPERATIONS

A Close Look at the Operational Level of War at Sea

Captain Wayne P. Hughes, Jr., U.S. Navy (Retired)

T oday's American navy writes prolifically about maritime strategies but has not devoted equal attention to campaign plans or analysis that tests the strategies' viability. We illustrate herein how the operational—or campaign—level links policy and strategy to the tactical and technological elements of war at sea. First, we relate how the U.S. Navy reluctantly came to accept the existence of an operational level of warfare but having done so will find it useful. Second, we describe important properties of naval operations in terms of constants, trends, and variables in warfare at and from the sea. Third, we demonstrate how operational-level planning would help if the Navy and the nation were to adopt six clearly stated, twenty-first-century strategies that would serve present and future national policies better than do current strategy documents.

VIEWS OF NAVIES REGARDING THE OPERATIONAL LEVEL OF WAR

> *In both peace and war, we frequently carry out our roles through campaigns [that] focus on the operational level of war. . . . There are three levels: tactical, operational, and strategic. . . . The operational level concerns forces collectively in a theater.*
>
> GENERAL C. E. MUNDY AND ADMIRAL F. B. KELSO

The Operational Level of War at Sea Introduced and Described

The U.S. Navy first acknowledged the existence of an operational level of war at sea when Admiral Kelso, as Chief of Naval Operations, and General Mundy, Commandant of the Marine Corps, signed the first "naval doctrine publication," entitled *Naval Warfare,* in the spring of 1994.[1] In part the change had come from

pressure for common terminology after World War II. In part it had come at the urging of the Marine Corps, which saw the advantage of applying "operational art," standing between strategy and tactics. The second edition of *Naval Warfare,* issued in 2010, reaffirms the three levels of war and concentrates specifically on the operational level as its doctrinal domain.[2]

The three elements of war, in the Navy's eyes, had previously been strategy, tactics, and logistics. Part of the reason that logistics were prominent was the geographical span of naval operations. Distances scarcely imagined by ground force commanders are involved at sea; a map of a maritime theater generally covers a geographical area an order of magnitude larger than that for a ground campaign. The activities of a naval campaign (or operation) are probably at least 80 percent the processes of operational logistics. Therefore it is reasonable—and clarifying—to say that the American navy's three levels of war at sea have now become strategy, operational logistics (or merely operations), and tactics. In what follows, we apply this utilitarian perspective of three levels of war to describe *naval* operations. We make no reference to operational art in past U.S., German, or Soviet army applications for ground operations. Nor do we have space to describe how naval operations are linked to joint operations. We are consistent, however, with the quite adequate descriptions of joint operations in *Naval Warfare* (NDP-1).[3]

The Traditional View of Navies

Sir Julian Corbett and American admirals Bradley Fiske and J. C. Wylie, among others, thought strategy included the operations in a naval campaign. This viewpoint permeates Corbett's *Some Principles of Maritime Strategy.*[4] Fiske's *The Navy as a Fighting Machine* describes his vision of a fleet this way: "Imagine now a strategical system . . . so that the navy will resemble a vast and efficient organism, all the parts leagued together by a common understanding and a common purpose; mutually dependent, mutually assisting, sympathetically obedient to the controlling mind that directs them toward the 'end in view.'"[5] Wylie is the most explicit. He points out that in most of history naval theorists have said that tactics apply when the opposing forces are in contact. Then, "the plans and operations are 'tactical.' Everything outside of contact is 'strategic.'"[6]

Among non-American examples there are no better illustrations than Italian admiral Romeo Bernotti's two fine books on tactics and strategy written in the first decade of the twentieth century. While still a lieutenant and instructor in the art of naval war at the Royal Italian Naval Academy, Bernotti wrote his highly respected *Fundamentals of Naval Tactics.* In 1911 followed *Fondamenti di strategia navale* (Fundamentals of Naval Strategy). The latter has never been published in English, but both books apply quantitative analysis so effectively that Bernotti's biographer, Brian Sullivan, says they foreshadowed operations analysis that we

usually date from World War II. Bernotti's untranslated book on strategy is almost entirely devoted to naval *operations*—that is, campaign planning and execution. The text is replete with geometric and mathematical guides for operational activities that include "strategic" reconnaissance and search procedures, along with the distinction between strategic and tactical scouting methods; strategic mobility, cruising speeds, and combat radii; and logistical activities, accompanied by a quantitative comparison between serial replenishment at sea and support from nearby bases.

In the years prior to World War II, most professional studies at the U.S. Naval War College, in Newport, Rhode Island, emphasized either tactics (and technology) or operations (and logistics). The war games played there—over three hundred of them between 1919 and 1940—were intended either to execute a presumed strategy in a campaign or to teach and test battle tactics. These games revealed early on that the strategy then intended to guide the campaign in the Pacific was unexecutable. They correctly showed that a strategy of rapid relief of the Philippines (under Japanese attack, of course) would take too long. Over twenty years a change to a more realistic Pacific strategy took place, slowly but relentlessly. There was no wishing-will-make-it-so in Naval War College strategic thinking, because execution was tested for feasibility by strategic (i.e., operational) games.[7] The operational level, tested in "battles" at the tactical level, had evaluated the intended strategy and found it wanting.

The U.S. Navy's skills at operational planning and methods for conducting campaign analyses have greatly expanded since the days when Naval War College gaming was so central. Analytical successes achieved during the Cold War were valuable in refining plans for nuclear deterrence and protecting the sea-lanes to Europe.[8]

Kinds of Naval Operations

A categorization broadly applicable to most states is that navies perform one or more of four tasks. Every navy's composition will be, or ought to be, constructed on the basis of its intended contribution to the following functions:

On the seas . . .

1. Ensure safety of goods and services: navies protect the *movement* of shipping and means of war on the oceans and safeguard *stationary* forces, to include nuclear-powered ballistic-missile submarines (SSBNs) and coastal patrols.

2. Deny safety of enemy goods and services: navies prevent the movement of enemy shipping and means of war and threaten enemy forces, such as SSBNs.

From the seas . . .

3. Deliver goods and services: navies put land forces ashore to seize and hold territory and deliver air and missile strikes for a variety of purposes. (Recently our own navy has added delivery of disaster assistance as an explicit "core competency.")

4. Prevent enemy delivery of goods and services: navies protect the homeland from threats coming by sea.

American Naval Operations

Before examining operations in the contemporary scene, it is useful to review the traditional views of sea power, because the U.S. Navy is now emerging from an anomalous period, one that began in 1945, in which it performed two functions only. The first was defending the sea lines of communication that linked members of the North Atlantic Treaty Organization (NATO) on both sides of the Atlantic. The second was projecting power from sea to land in many places. The first function was never put to the test. The second was performed without loss and almost flawlessly in support of a great many land operations overseas.

The oceans are very large, two-dimensional highways for commercial shipping. Whoever controls the seas has a great advantage, the loss of which leads to dire consequences. There is incontestable historical evidence that sea powers usually defeat land powers. See any of A. T. Mahan's works, commencing with *The Influence of Sea Power upon History, 1660–1783*—they show the sweeping effect of command of the seas in history, from Greek and Roman times through the Napoleonic Wars. A more recent book to this point is John Arquilla's landmark *Dubious Battles.* Arquilla quantifies an even bolder assertion, that in wars since 1815 not only have sea powers usually defeated land powers but land powers more often than not initiated the wars that they then lost.[9]

Both Mahan and Arquilla offer rich explanations of the strategic reasons why. For example, a land power usually must maintain a substantial army. Only the most prosperous of land powers can simultaneously field an army and deploy a navy—as, for example, when France, the great land power of the eighteenth century, was confronted at sea by Britain's Royal Navy. Neither Mahan nor Arquilla, however, explains the operational advantages that a sea power exploits over a land power. We will explain the advantages explicitly, under two great constants: *operational maneuver* and *efficiency of movement.*

The Traditional Composition of a Fleet

In the past, naval operations have been carried out by four categories of naval forces. The first three are described best by Julian Corbett, the preeminent naval writer of a century ago.

A *battle fleet,* capital ships and accompanying forces, meets and destroys the enemy's battle fleet. Mahan said, correctly, that the purpose of a battle fleet is to destroy the enemy's fleet in order to achieve command of the sea. But a battle fleet was usually ill suited to perform other roles. Corbett famously identified two other kinds of forces as well.

The first of these (and the second category of forces) comprised *cruisers,* which attack enemy commerce or defend our own from attack. Capital ships of the battle fleet have been inefficient at or incapable of defending "trade," even after establishing unchallenged command of the seas. Raiders, pirates, and privateers were historically the threat. Since World War I surface raiders have been replaced by submarines and also,

> *The war games played [at the Naval War College between 1919 and 1940] revealed early on that the strategy then intended to guide the campaign in the Pacific was unexecutable.*

since World War II, by long-range, shore-based aircraft or missiles. A state that could not challenge a big navy for sea control could resort to *guerre de course,* a guerrilla war at sea, threatening commerce and denying to the sea power risk-free operations. Hence, defensive "cruisers" represented a necessary navy component, sufficient in numbers, speed, and radius of action to defeat cruiser-raiders. Submarines that supplanted surface raiders had to be opposed by large numbers of antisubmarine forces, which are also "cruisers" in Corbett's terminology. Mine warfare is another form of cruiser warfare.

Corbett also pointed to *flotillas* that operate in littoral waters too dangerous for capital ships. A flotilla consists of small combatants with short radii of action but considerable firepower. It survives less by armor or defensive firepower than by numbers of units and stealthiness, exploiting the coastal "terrain" and attacking in coordinated operations that we now call "swarms."

The emphasis of Mahan and Corbett is on control of the oceans—Functions 1, 2, and, indirectly, 4. To serve Function 3, the *amphibious force,* a fourth category of fighting fleet, was introduced and developed by the Navy and Marine Corps for World War II, when it comprised assault transports, tank landing ships, medium landing craft, and the like. But Function 3, the delivery of goods and services from the sea, is much broader than an amphibious force's opposed-assault capability. Since the last opposed landing, at Inchon in 1950, the nation has enjoyed near-flawless success in safe, unopposed delivery of ground and air forces from the sea. Books by P. H. Colomb and Frank Uhlig make clear that this category of operations—power projection for land operations—is what dominant navies have been concerned with most of the time.[10] Throughout history, influencing events on land has been a function sometimes as important and performed as frequently as safeguarding the sea-lanes. And why not? "The seat of purpose is on the land"

has been and remains a cornerstone for every navy, a tenet to remember even when a contest for command of the sea temporarily dominates its operations.[11]

It is clarifying to distinguish the amphibious *assault* ships intended for forcible entry by marines from the many more and different kinds of ships for the amphibious *lift* that delivers and sustains army, marine, special forces, and air forces overseas. Mahan and other writers of his era emphasized that sea power included a merchant fleet. This was in part because when he wrote a commercial fleet was the means of delivering armies overseas.

An Incongruity and Its Significance for the Twenty-First Century

Observe there is no evident congruence between the four functions and four traditional force types—that is to say, between the ends and means of naval operations. A nation's operating forces are its means of achieving its maritime (or national) strategy's ends. Though the functions will abide, there is no inherent reason why the force categories of the past must hold in the future. The U.S. Navy may wish to examine whether the paradigm of a battle fleet of capital ships physically concentrated to achieve decisive battle is obsolete. It would be highly useful to explore whether Functions 1 and 2—safeguarding the movement of ships at sea and denying safe movement to the enemy—can be achieved without capital ships, such as ships of the line, battleships, or aircraft carriers. No one knows with certainty, because the U.S. Navy's command of the seas has not been recently challenged. Even the formidable Soviet navy concerned itself mainly with sea denial, rarely with sea control. Later we will suggest that a more distributable and survivable navy for the twenty-first century might do triple duty as battle fleet, cruisers, and—at least in part—flotilla. Such a fleet cannot serve, however, for efficient projection of sea power to the land.

To pursue the several relationships would constitute a study in itself. It is a subject we have no space to consider in detail, but it is pertinent that the nature of future ships, aircraft, and sensors in a missile-age navy derives as much from operational as from tactical considerations.

OPERATIONAL CONSTANTS, TRENDS, AND VARIABLES

> *Understanding the processes of combat is a better approach to tactics [than principles are]. Processes are the navigator's science and art; principles are the stars he uses to find his way. . . . The key to fruitful study . . . is an appreciation of how battles transpire in time and space.*
>
> WAYNE P. HUGHES, JR.

The principles of war—and from Sun Tzu until now there have been at least twenty-two sets of them—must by definition apply to war at sea, but because they are general and abstract they inherently have limited practical value.[12]

Operational *constants*—things that abide—are more utilitarian, because they can be deduced from the history of naval operations. *Trends*—things that change from age to age in one direction—are likewise deduced from history, are usually brought about by new technology, and apply as much at the operational level as the tactical level at sea.[13] The sinking of the Israeli destroyer *Eilat* by small Egyptian missile boats on 21 October 1967 was an abrupt indicator of the lethality of small missile ships and their power to take out more than their weight of enemy warships at sea.[14] The fatal attack foretold a swift change, an abrupt transformation of naval combat. The significance was grasped at once by the Israeli navy, which ordered small *Sa'ar* combatants armed with Gabriel missiles and employed them nearly flawlessly in the 1973 Arab-Israeli War.

There is a third category we shall call *variables.* Variables at the operational level of war stem not from technology but from social and political change. Variables are not a trend in one direction but change according to geopolitical circumstances. The present interest in irregular warfare and resistance to terrorist attacks, such as the one on USS *Cole* (DDG 67) at Aden, brought about a great change of emphasis in the world's navies (and armies), but throughout history there have been many examples of sneak attacks in ports or restricted waters. The well named "Long War of the Twenty-First Century" appears to have durability, but any historian will say that what is wrought by societies and geopolitics will change in direction. The rise of China and its well documented interest in sea power is one such impending change, one that ought to temper any single-minded U.S. Navy emphasis on projection of power and, relatedly, humanitarian operations.

No catalog of constants, trends, and variables in naval operations has been compiled as has been done at the tactical level, but it is useful to offer salient examples of each.[15]

Two Great Constants: Operational Maneuver and Efficiency of Movement

"Operational maneuver from the sea" is a modern term coined by the U.S. Marine Corps, but the efficacy of expeditionary operations and the efficient support of land forces operating across oceans have been and remain constant advantages of maritime superiority. Twenty-five years ago, in the heyday of the NATO alliance, a thoughtful German army officer named Otto Bubke wrote a short essay describing the operational reasons why command of the sea is so advantageous.[16] On one hand, he argued, sea control prevents an enemy from attacking from the sea. On the other, it gives a maritime state the power to choose its scene of action, somewhere on a land power's coast.[17] The reason for the latter, he stressed, was the operational-movement advantage of ships over ground transportation. At sea an amphibious force moves around five hundred nautical miles a day. Fast containerships move farther still, though in the twentieth century the norm for

merchant ships was more like four hundred. On land an army moving at operational speed against weak opposition advances about twenty-five statute miles a day. The famous German blitzkriegs in Poland and France in 1939 and 1940 moved no faster than that. The ancient Roman road system was designed to allow a legion to move thirty miles a day.[18] In 1066, King Harold of England had to rush north to defeat a Norwegian attack near York and then immediately back south to face William of Normandy at Hastings (where William would earn the epithet

Though the functions of force will abide, there is no inherent reason why the force categories of the past must hold in the future.

"the Conqueror"). Harold's army averaged thirty miles a day during the round-trip. In DESERT STORM, the American army's famous "left hook" crossed Kuwait to reach the Iraq border eighty miles away in four days, thus moving at twenty miles a day. A decade later, in Operation IRAQI FREEDOM, American ground forces advancing against light to moderate opposition took twenty-one days to reach Baghdad, which was 250 miles from the Kuwait border—a rate of advance of twelve miles per day.

Thus, in speed of operational movement ships have more than an order-of-magnitude advantage over armies advancing against no or light resistance. They always have and likely always will. The number of logistical personnel required to move a force to the scene of action and sustain it there is probably two orders of magnitude less for ships than for land transport. In weight of combat potential carried per unit of energy expended, the advantage of ships may be as much as three orders of magnitude. The introduction of aircraft and aerial logistics complicates this simplified description, but aircraft have never changed the threefold advantage of ships over ground transportation sufficiently to offset a sea power's operational advantage. Ballistic missiles with nuclear warheads potentially attenuate a sea power's advantage if they are used intercontinentally, but to date they have not significantly altered the advantage of naval operations in speed or efficiency of movement.[19]

Otto Bubke did not say, nor do we, that the sea power's advantage is the power to attack a strong land power's physical center of gravity, because the land power will know what that vital spot is and defend it. Nor does the sea power's advantage always allow it to strike quickly and decisively; Great Britain found out that it could not land on German soil in World War I, and even an alternative operation against the Dardanelles proved too ambitious. In World War II the Normandy landings had to be deferred until 1944. But Bubke shows with rare clarity that because a sea power cannot be invaded, it does not have to maintain a large standing army, and it can often find and fund allies for coalition operations against the dominant land power that threatens them all.

Another Constant: Two Different Campaign Processes

J. C. Wylie was the first to distinguish two different "strategies," or ways of conducting a campaign. One is "sequential," in which each operational success is another step toward victory, and a battle won becomes the foundation of the next. The classic example is the sweep of the Fifth and Third Fleets across the Central Pacific in amphibious assaults from the Gilbert Islands to the Philippines in less than a year. Mahan spoke of achieving one decisive battle, but in the last two centuries two or more "decisive" battles have been necessary to achieve command of the sea.

The other way of conducting a campaign described by Wylie is through the "cumulative" results of many small actions. The world wars' submarine campaigns in the Atlantic, Pacific, and Mediterranean are representative, and all *guerres de course* are antecedents. Those who do not find the distinction self-evident will find a thorough discussion in Wylie's classic *Military Strategy*.[20] Wylie also points out the advantage of pursuing both operational modes in concert.

Sequential and cumulative campaigns were common in the age of fighting sail, the battleship era, and aircraft-carrier era. Although there have been no big sea battles in the missile age, this operational constant continues to hold. A sequence of short, sharp missile battles occurred in the eastern Mediterranean in the 1973 Arab-Israeli War, and it deserves careful study. A sequential campaign on the open ocean in the missile age was waged by the British navy in the Falklands War. It started at sea and ended on land. A superb introduction to it is by its operational commander, Admiral Sandy Woodward, Royal Navy. His felicitous memoir, *One Hundred Days,* is the best and very nearly the only personal description of the burdens of modern command at sea—long-range aircraft, short-range Exocet missiles, and a submarine put unremitting pressure on him at the operational level, and sometimes the tactical level as well.[21]

A long cumulative maritime campaign that transpired during most of the 1980s (actually, a pair of identical and opposing ones) was conducted by Iraq and Iran against shipping in the Persian Gulf. It included many—over a hundred—missile attacks.

One More Constant: The Importance of Espionage for Operational Effectiveness

We will examine below as a great trend the improvements in operational reconnaissance and surveillance. There can be little doubt, however, that clandestine information gathering—espionage—with a similar goal has affected states and naval operations for a very long time. A prominent tool of espionage has been code breaking, illustrated by MAGIC's effect in determining Japanese operational intentions. In the Battle of the Atlantic, ULTRA on the Allied side—though offset at times by code breaking on the German side—created big swings in the loss

rates of Allied shipping and German U-boats. In the Cold War, U-2 and SR-71 flights were prominent in "strategic" (i.e., operational) early warning. The important observation for our purposes is that the value of espionage is not tactical but operational. It may bring about battles—for example, the battle of Jutland and other North Sea engagements in World War I—but it rarely affects battle tactics or outcomes.

A Great Trend: Changes to Scouting Effectiveness

The scouting process enjoys a trend, stemming from advances in technology, to greater detection range and accuracy. "Scouting" is the gathering and delivery of information; that once-popular term is more compact than "intelligence, surveillance, and reconnaissance" (even though often abbreviated as "ISR"). Throughout most of naval history operational scouting was difficult for fleets. When a blockaded fleet escaped to sea, the blockading fleet was hard put to regain contact. After the French fleet escaped Admiral Horatio Nelson's blockade of Toulon and other French ports in 1798, he spent weeks sailing all over the Mediterranean trying to track it down before he finally found and destroyed it in the battle of the Nile.[22] Until the first decades of the twentieth century, privateers, raiders, and pirates preyed on shipping without untoward risk. A great transformation occurred between 1910 and 1920 with the introduction of aerial reconnaissance for wide-area search, accompanied by instant wireless-radio reporting.[23] Within a decade surface raiders became obsolete, and *guerre de course* at sea, to be successful, had to be conducted by submarines, which could to a much greater extent remain undetected by aircraft. Locating an enemy fleet and even individual surface raiders became much less of a guessing game. Aerial scouting at sea changed the nature of naval operations irrevocably.

And the trend continues, with satellites, unmanned aerial vehicles (UAVs), and other means to enhance surveillance at sea. Electronic intercept exacerbates the vulnerability of radiating warships to detection. Processing the information has now become a greater challenge than collecting it. Thus the current trend is a shift of emphasis from the means of scouting—to collect comprehensive data—to the fusion and interpretation of massive amounts of information into an essence on which commanders may decide and act.

Tactical and operational scouting overlap to no small extent—in fact so much so that they can be distinguished only by their effects. A UAV may be in the air for surveillance and operational warning of an approaching threat, or it may serve the tactical purpose of guiding weapons to the target. The initial efficacious campaign against the Taliban in Afghanistan is a good illustration of operational and tactical scouting conducted with the same aircraft.

The watchword of operational scouting is *comprehensiveness.* The watchword of tactical scouting is *timeliness.*

Three More Trends

Increasing Range of Land-to-Sea Threats. Increasingly the sea is subject to attack and even domination from the land. At first land-based aircraft were not very effective unless their crews were specifically trained to navigate and hit moving targets afloat. For the past thirty or forty years vulnerability to land attack has grown because of the tactical-operational trend toward increasing range and accuracy of scouting systems (or ISR), accompanied by the increasing range and accuracy of guided missiles, both ballistic and cruise. Today's defender is increasingly hard put to deal with either kind of antiship missile, let alone both. This leads to the possibility of a coastal no-man's-land where neither shipping can flow nor surface warships can operate until command of the sea, including air superiority over the adjacent land, has been established. The trend restores emphasis on Function 1 (secure seas), which in large measure was taken for granted in the U.S. Navy after 1990, when Function 3 (projecting power) was the sole focus of attention.

Increased Port Vulnerability. Strikes into ports and airfields ashore have, over the past seventy years, virtually eliminated the "fleet in being," held safely in reserve. Starting with the British strikes on Italian battleships in Taranto in 1940, the hazard to ships in port has grown. A recent example is the use of missiles in two Indian attacks on Pakistani ships in Karachi in 1971. In the realm of irregular warfare, the terrorist attack on *Cole* in port at Aden and U.S. Navy efforts to prevent recurrences point to an important change of operational perspective that applies even in "peacetime."

Growth of Claims to Ocean Ownership. In the past "ownership" was a question largely restricted to land war. Today the question of ocean dominion—accompanied by increasing claims of ocean sovereignty—is a visible trend that will continue. Fishing rights have long been contentious, but now seabed mineral resources have led to expanding international claims and counterclaims that threaten to curtail freedom of transit on the high seas or to lead to conflict at sea.

A Variable: Changed Operational Plans Due to Social and Political Developments
The current emphasis on irregular warfare is a change that is not a trend. It does not stem from scientific progress; its cause is human, not technological. Nonstate terrorist attacks and other criminal activity, such as smuggling, have led the world's armed forces to act against a threat different from those the U.S. Navy prepared to oppose in the twentieth century. The problem's maritime aspect is represented by piracy, stolen cargoes (for example, Nigerian petroleum), and terrorist threats to shipping. Maritime forces contend with drug running and illegal immigration, including "boat people" fleeing unstable societies. At present, however, our navy's most frequent role is to deliver and sustain forces contending

on land in irregular warfare for purposes of stability, security, and reconstruction. Meanwhile, the foremost role of a great sea power—presently the United States—presumably is still the security of all nations' shipping on the high seas.

Navies have conducted small wars to suppress rebellion, piracy, and slave trading many times in the past. But it is prudent to anticipate that fleet actions will occur again in the future, because China must and will go to sea to achieve great-power status.

Part Variable, Part Trend: Fewer Battles at Sea

Sea battles for maritime supremacy in Greek and Roman times were much more prevalent than today. This was also true in the Mediterranean in the fifteenth and sixteenth centuries, when Ottoman Turks and the leading powers of Europe —Spain, France, and the Holy Roman Empire—contended with each other in prolonged and bitter operations on land and sea. In the seventeenth century, the Dutch and English fought repeated wars almost completely restricted to the seas. The phenomenon was tied to technology: at the time, a new fighting fleet could be built in just a few years. A wealthy state's defeated navy could be back in action soon after having suffered a crushing and "decisive" defeat.

The nineteenth century was a transition, one in which the ships became bigger, more expensive, and more heavily armed. It became harder for a defeated state to replace its losses or construct a new navy. In the early twentieth century the trend of fewer battles continued throughout the battleship era. This led to a startling phenomenon. From 1890 to 1910 no fewer than seventy-four *classes* of pre-*Dreadnought* battleships were built. Yet during the entire battleship era only seven decisive battles for command of the sea occurred.[24]

But the variables of statecraft too are responsible for fewer battles and less conflict on the high seas. In part the trend may be traced to the dominance of Great Britain and its policy of enlightened self-interest during the Pax Britannica, during which the Royal Navy protected the shipping of all friendly nations. A period nearly free of sea battles lasted from 1815 to early in the twentieth century. The infrequency of fleet actions explains to a large extent why capital-ship designs in the battleship era were so numerous, so experimental, and sometimes so foolish. The stability of the Pax Britannica was finally destroyed before World War I by the rise of Germany and its High Seas Fleet, along with the navies of many other states who felt compelled to compete. The existence of many fleets continued through World War II and generated many naval operations and battles. After World War II, American naval dominance created a new era of stability and an absence of decisive fleet actions—although there was no lack of naval operations, as the ascending U.S. Navy and other, declining navies projected their power overseas.

Thus the infrequency of naval battles is due in part to technology that spawned bigger and more expensive warships, aircraft, satellites, and command-and-control systems. In part it is the product of a nontechnical, social phenomenon in which states have been content to let one dominant sea power protect their sea-lanes. But that is changing. There has been reluctance in other states to rely on big, expensive American warships to protect against piracy, for example. As the societal variables wax and wane, we should also anticipate a resurgence of confrontations at sea that will accompany the rise of a peer competitor against a dominant sea power, which, of course, are currently the Chinese People's Liberation Army Navy and the American navy, respectively.

THE PROCESSES OF OPERATIONAL COMMAND THAT GOVERN A CAMPAIGN

> *A fairly careful scrutiny of the opponent's thought patterns and their underlying assumptions should be an early component of our own planning process. . . . An examination of this type might uncover something crucial in reaching toward establishment of control.*
>
> J. C. WYLIE

Clear Decisions and Integrated Actions

In theory, strategists determine the desirable aims in a theater of operations, specifically where and when to act and why.[25] They also normally decide the forces to commit to the campaign. The tactical commander determines how to confront and fight the enemy at the scene of action by transforming the combat potential of forces into combat power. Lying between strategic intent and tactical fulfillment, the operational commanders' role is to assure for themselves sea control for safe transit and delivery of the forces carrying combat potential to the strategists' scene of action and to sustain them for the duration of the campaign. What we take from Wylie is that we cannot determine how best to control an enemy until we know the opponent sufficiently to get inside his mind and methods. Abstract enemies at unspecified locations will not take us far in concrete planning.

In practice, the three levels are an overlapping web of responsibilities and authority. Before a campaign is initiated, some combination of strategic and operational thinking estimates the combat potential needed to achieve the objective against the expected opposition, then calculates whether that quantity can be delivered and sustained. It is a responsibility of the operational commander to tell the strategist realistically how fast the forces containing the requisite combat potential can be brought to the scene of action. Of course, the strategist has a staff to make these estimates, but the staff does not have to perform the acts

of delivery and sustainment, and the operational commander's staff usually has better local knowledge of the temper and talents of the opposition. Tactical commanders will also make their own estimates about sufficiency and will have their own opinions about the enemy as they construct battle plans to create combat power and employ it.

Seamless Planning and Execution

One is struck by the seamlessness of the discussions of war on and from the sea in the writings of the best authors. They also emphasize the difference between operations and tactics at sea and those on land. The closer one looks, the more one detects overlap between the policy-strategy, operational-logistical, and tactical-technological elements in the successful conduct of war at sea. That does not obviate the advantage of artificially distinguishing separate purposes for strategy, operations, and tactics, as long as the officer corps does not become pedantic about isolating responsibilities in different decision-making bins.

Let us look at two familiar, critical junctures in the Pacific War through a new lens to show the separate but interwoven characteristics of strategy, operations, and tactics. Both examples are taken from 1942, when Japanese and American forces were evenly matched in quantity, quality, and tactical prowess.

Illustration of Actions by Defenders

Through the spring of 1942, the United States was on the defensive in the Pacific while the Imperial Japanese Navy conducted a swift, successful campaign of conquest in French Indochina, the British Malay States, and the Dutch East Indies, while concurrently establishing a maritime perimeter to protect its resource base in Southeast Asia.[26] Through the battle of Midway, the Japanese navy decided where and when to act. Commander in Chief, U.S. Pacific Fleet—the operational commander, Admiral C. W. Nimitz—had the role of marshaling our defenses. The strategist, Admiral E. J. King in Washington, had plenty to say, but the formal role he pursued, and vigorously, was to send reinforcements, from the Atlantic and from new construction, to the theater as rapidly as possible.

A curious thing about the battle for Midway Island is the dual role played by Nimitz before the battle. A close reading of his decisions shows that he was at the outset his own tactical commander. He positioned the carrier task forces of R. A. Spruance and F. J. Fletcher and assigned their aircraft carriers specific and different tactical roles; he directed all the long-range reconnaissance; and he ordered the air attacks from Midway Island. These were not operational decisions; they were tactical decisions and crucial to our success. Only Nimitz at Pearl Harbor had the power to control long-range air search and activate the initial air attacks from Midway, which were ineffective but valuable in that they distracted Admiral

Chuichi Nagumo. Nimitz did not and could not let go of the tactical reins until the task forces' three lurking, undetected carriers, constrained by radio silence, had themselves detected the Japanese Striking Force's four carriers. When it was possible for Fletcher to assume tactical command, Nimitz backed off. Then when Fletcher's command suite was crippled, he did not hesitate to pass the conn, seamlessly, to Spruance.[27]

Illustration of Actions by Attackers

The campaign for Guadalcanal was the first time the United States exercised significant strategic choice in the Pacific. The extended campaign for Guadalcanal and the larger Solomon Islands campaign are splendid examples of the interrelated roles of strategy, operational (or logistical) support, and tactics, in all of which sea, air, and ground forces all collaborated.

States have been content to let one dominant sea power protect their sea-lanes. But that is changing.

The Joint Chiefs of Staff, urged on by Admiral King, decided after the battle of Midway that the geographical area around the Solomon Islands in the southwest Pacific was of supreme importance and a suitable location for a fighting defense, known later as the offensive-defensive phase of the Pacific War. Because the Japanese, though licking their wounds suffered at Midway, were also constructing an airfield on Guadalcanal from which to dominate the surrounding airspace, King wished to block their advance by a swift assault to seize the airfield before it became operational. Time was critical, so the landing was specified for early August 1942.

Admiral Nimitz, the theater commander, had to decide whether the forces envisioned would be adequate. There were ample ground forces in the Pacific but enough transport to deliver and sustain only one Marine division as far away as the Solomons. It would be the task of the tactical commanders, notably Admirals Fletcher and R. K. Turner and Marine general A. A. Vandegrift, to land the 1st Marine Division, establish a perimeter on Guadalcanal, and activate the airfield (to be known as Henderson Field). Much of the Pacific Fleet would be committed to support the landing and block a Japanese response.

Thereupon came about a bitter six-month-long campaign for Henderson Field—a reaction from the Japanese navy had been predicted but not its vigor. Historians have covered the campaign in detail but have not said enough about the initial operational constraint on the American side, the lack of transport. On the Japanese side the failure lay in an initially piecemeal, if swift, response, sending too little too late to push the Marines into the sea. This was in part due to mismatch at the strategic level between the importance of the end and willingness to send tactical commanders the means to destroy the American

fleet and beachhead. This confusion arose in part because Japanese intelligence underestimated the American forces ashore and afloat, and in part because the Japanese army and navy underestimated the resolve of American land, air, and sea forces, which, after a shaky start, fought well and exhibited a very high degree of interservice cooperation.

Then the reason for Japanese failure became logistical. The decisive American campaign advantage was that the United States could reinforce and sustain its lodgment with food, fuel, and ammunition because it controlled the air in daylight hours, while the Japanese were forced to reinforce and support their troops only at night. Taking nothing away from the Marines, who had to defeat the Japanese army in every battle on the perimeter of Henderson Field, the campaign was won by the decisive *operational* effects of starvation and disease suffered in the many Japanese battalions on the island.[28]

Tension between United Action and Delegated Authority

The ideal in a war is to achieve similar collaboration of all commanders vertically and laterally, so that cohesive action results. It should be easy to understand why perfect unity is hard to achieve, because prosecution of a campaign entails decentralized authority and responsibility. The art of fencing, or samurai swordsmanship, is a poor analogy for a military operation because swordsmen are in sole control of their actions and do not have to cooperate with anybody else. A better analogy is football, because it is a team effort in a campaign (the game) comprising a series of battles (the plays).

Evidently the ideal is rarely attained. The best, but imperfect, results come from:

- Sound *doctrine* that fosters operational and tactical unity of action.

- Sound *training* that prepares all echelons for teamwork. The basis of cohesion is notably unobtainable at high echelons when government officials neither know nor care about the intricacies involved in cooperative action in a maritime campaign or about the difficulty of retraining to a new operational objective.

- Sound *experience* that comes from enough of the right kind of war making to know what to expect of companions in positions of authority and responsibility. This is a great limitation when interpersonal experience has been in fighting an inapplicable kind of war.

These three cornerstones of success are preparations at the *operational* level, not the responsibility of tacticians—at least not at sea.

AMERICAN NAVAL OPERATIONS TODAY AND IN THE FUTURE

> *This is a static [Roman] world. Civilized life, like the cultivation of Auso-*
> *nius's magnificent Bordeaux vineyards, lies in doing well what has been*
> *done before. Doing the expected is the highest value—and the second*
> *highest is like it: receiving the appropriate admiration of one's peers for*
> *doing it.*
>
> THOMAS CAHILL

Two Underappreciated Transformations

In *How the Irish Saved Civilization* Thomas Cahill uses the poet Ausonius as a foil to show why gentrified Romans could not see that changes all around them would soon lead to their empire's collapse.[29] Naval operations are not poetry, and American perspectives are far from those of the Roman Empire, but this is not a time for U.S. leadership to be admired for *doing the expected* in planning the Navy's future. The American navy has not been contested at sea since 1945. In all subsequent operations—including major conflicts in Korea, Vietnam, and Southwest Asia—it has enjoyed the unconstrained benefits of delivering combat power from a safe sea sanctuary. With few exceptions, its doctrine, training, and preparation for fighting enemy ships in missile combat have had to be based vicariously on the experiences of other navies. That probably explains why our navy has not recognized the significance of two big transformations.

A *tactical transformation* was from the carrier era to the missile era of warfare, along with two additional complications: the impending influence of robotic systems and of cyber operations. The combat effects of missile warfare at sea were not crucial until the *geopolitical transformation* in East Asia, which now impels a reconsideration of the American strategy to influence China and our Asian allies in the twenty-first century.

The operational solution to retain strategic influence in the western Pacific must reflect China's growing antiaccess tactics and also anticipate that China, for quite logical reasons, will soon construct a sea-control navy of its own.

The fundamental changes in East Asia are accompanied by U.S. fleet obligations in many and varying places around the world—first, to fight irregular wars; second, to maintain coastal presence for peacemaking; and third, to attain local sea control and deliver combat power from the sea. The latter is the U.S. Navy's familiar post–World War II role, of course, in which combat power, manifested in ground and air forces, was delivered unfailingly and efficiently at every scene of action—and was consistently taken for granted.

We have emphasized the decisive shift to missile warfare. We have not as yet spoken of undersea warfare, which has been neglected in the U.S. Navy for two decades. Antisubmarine and mine forces need to concentrate on the difficult

waters of the Persian Gulf, the Strait of Hormuz, the Yellow Sea, and the China Sea, where mine, submarine, and antisubmarine operations must be conducted amid bottom clutter and surface-craft noise in waters as shallow as thirty fathoms. Submarines in greater numbers must burnish old-fashioned skills to sink ships of many kinds in deep and shallow seas. A lot of catch-up is needed to exploit new technological opportunities in undersea warfare.

The Content of Viable Strategies

Service documents list six "core capabilities" for the U.S. Navy: Forward Presence, Deterrence, Sea Control, Power Projection, Maritime Security, and Disaster Response.[30]

When the first four capabilities were first described in the 1970s, our primary opponent was well known in the way Wylie prescribes; the national military strategy to constrain the Soviet Union was well defined, Navy campaign analyses were extensive, and fleet exercises were frequent and generated well documented, influential results. Today the desirability of such capabilities is inarguable, but the taxonomy is useless as a guide for future fleet configuration. The capabilities are too vague to be tested without specifying locations or enemies, and they say nothing about weight of effort—the forces and tactical skills that must be devoted to each. To date the list of core capabilities has had no effect whatsoever on U.S. fleet composition. It does nothing to help develop an affordable navy to support national strategies.

In the twenty-first century the nation will need clearly expressed, testable strategies affecting the naval component of American forces. For purposes of illustration, I suggest that the following six strategies would adequately describe the primary ends and means of a comprehensive national security plan.

For China. Forces with the power to influence China and our friends in Asia and to ensure freedom of the seas for all nations would serve as the means to the end of maintaining effective American presence in the western Pacific. Insofar as possible, the same forces must be designed to limit any conflict to China's own seas in a way that avoids abrupt escalation into a long, debilitating war.

For Iran. Forces to deter any form of aggression by Iran ought to embody clearly the air and missile power needed to wreak destruction on the Iranian economy and means of war, as well as the naval power to isolate Iran by winning control of the Strait of Hormuz and seas on both ends of it. The forces for such an air-sea strategy will probably provide the best affordable means to respond to any other state threatening violence, while avoiding a costly war on the ground.

For Irregular Warfare. Forces can be deployed in many distributable packages and maintained economically for long-lasting antipiracy, antidrug, and antismuggling

operations or to support short, successful operations such as those conducted by ground forces in Grenada, Panama, and the first Lebanon crisis.

For Nuclear War. Navy forces are part of a national capability to deter an attack with nuclear weapons by any of a growing number of states that have them. Navy SSBNs and ballistic-missile-defense ships should contribute according to the provisions of that strategy. In addition, the strategy ought to specify how to combat terrorists and nonstate actors—presumably, as in the past, by denial to terrorists of weapons of mass destruction insofar as possible.

For Cyberspace. The nature of national cyberspace "forces" is not the only thing that makes this strategy different from the others. The White House and Defense Department have both issued cyberspace doctrines, which they call "strategies." The former aspires to be international policy, but (despite its title) it is not a testable strategy. The latter is probably adequate as a strategy that can serve as the basis of campaign planning and testing. For example, it explicitly calls for training and experimentation.[31] A cyberspace strategy and campaign plans are desirable because international, nonlethal cyberwarfare is going on right now. An executable national strategy is desirable because, first, cyberspace operations affect daily commercial, social, and government activities; second, cyberwar will play a significant role in a shooting war; and third, we have a peacetime opportunity to learn more about how electronic "forces" defend our systems and can attack an enemy in a fast-changing virtual environment. Yet the capabilities for defending and attacking cyber links are different in nature from the more tangible, countable objects of the other five strategies. Vice Admiral Arthur W. Cebrowski probably had such a distinction between links and objects in mind when he espoused "network-centric warfare."[32]

For Homeland Defense. Vital, difficult, and expensive though it is to keep homeland defenses up to date, the strategy ought not to affect U.S. fleet design. There are those who think Navy vessels for overseas irregular warfare should contribute to defending our coasts. Perhaps so, but let the national government first design a comprehensive homeland-defense strategy that emphasizes the Coast Guard and domestic law-enforcement agencies. Then we can see how an affordable Navy might contribute—for example, with collaborative research and the development of tools for coastal action.

This is a personal set of strategies to illustrate what is meant by having enough content and focus to be translated into executable war plans and tested by campaign (operational-level) analyses: simulations, war games, transparent mathematical representations ("models") of the process, and experiments at sea. It may not be the best list. For example, the strategies do not include major ground

combat operations like Operations DESERT STORM, ENDURING FREEDOM, or IRAQI FREEDOM. Paradoxically, those operations illustrate how planning and campaign analysis are done. Because they were tested in real war, they show both the rich reward and severe limitations of campaign studies that estimate the forces needed, help design the operational scheme, and forecast the casualties and time it will cost to execute the plan.[33]

An Appraisal of Consequences

Observe that a strategy without testing is merely a desire—a hypothesis. Campaign planning and analysis help find out whether a strategy is viable and whether assigned forces are suitable to execute it. It is not our purpose to discuss shortcomings in today's forces. We will merely assert that it is possible to design a better fleet to fulfill the U.S. Navy's role in the first four strategies, and within the current shipbuilding budget envelope. We have not especially concerned ourselves herein with the budgetary implications of future navy forces—costing is not inherent in the planning of current operations. But it takes only a quick reminder of coming national financial pressures to observe that future defense strategies must adapt to the nation's means to pay for them.

In the twenty-first century the nation will need clearly expressed, testable strategies affecting the naval component of American forces.

Observe, next, that each of the six is a *national* strategy. Though our emphasis here is on maritime activities, the Navy can neither express a strategy as policy nor implement it alone. Still, that is no reason why it should not be aggressive in describing the strategies and helping to test them for executability. The U.S. Navy can—indeed, it must—anticipate each strategy and build forces that serve as long-lived means to support it.

Observe that to be effective the strategies must be unclassified and widely read—by opponents, so they understand their feasibility and potential impact; by international friends, so they know our faithfulness and desire for collaboration; and by American policy makers, to engender unity of purpose. An advantage of distinguishing three levels of war is in separating a strategy that can (and must) be widely disseminated from the often-secret operational plans and actions needed to execute it.

Observe that the unified combatant commands cannot determine strategies even for their own theaters. A theater commander's task is to develop *operational* plans with the forces assigned. For influencing China, U.S. Pacific Command is the focus, and its commander will naturally work with the Joint Chiefs of Staff to develop and test effective operations in peace and war, with emphasis on maintaining long-term American influence in East Asia. In executing his peace-time responsibilities, the Pacific combatant commander will also anticipate and

describe combat capabilities better suited for the future, presumably in the form of more distributed and more survivable surface ships, submarines, aircraft, and ISR elements.

The fleet intended to influence China must be capable of serving many and varying American policies, from cooperation to competition, confrontation, or conflict. Yet its ships and aircraft must be constructed with thirty- and forty-year lifetimes. Even the simplest policies of cooperation applied to the People's Republic of China and the Republic of China have been deliciously multifaceted in the ways they have been executed by past American presidents and the Department of State. Their strategic thinking comprises wheels within wheels of subtlety. Cooperation implies port visits, joint exercises, humanitarian assistance, and other ways of signaling friendship. But in prior manifestations the Navy has also been employed as a tool to send confrontational signals with warships. Moreover, every American policy variant must be prepared to react to Chinese initiatives with a single, robust fleet composition.

Observe that each strategy must be designed so that most nations welcome, or even insist on, American action. This is not as difficult as it may seem, if one structures each strategy with that in mind. Twenty-first-century American strategies should include collaborators, reflecting that felicitous term, now out of favor, "a thousand-ship [international] navy."

Observe the issue of pace in the first four strategies. American navy planning during the Cold War placed the fleet forward in substantial numbers, because a Soviet attack would demand an instant NATO response before escalation to nuclear war. By contrast, exploration of deployments today is likely to show that for each of those four strategies a modest peacekeeping force at the scene is more desirable, if it can be followed by a formidable air and sea buildup. Our national strategies should be designed to signal substantively—as distinct from the mere use of threatening words—in time of crisis that the United States, backed by world opinion, intends to act forcefully. To some readers this will be a jarring point of view, because it has not been practiced by the U.S. Navy since before World War II, but it has advantages in both campaign flexibility and affordability. Patience is usually a greater virtue than immediate response when preparing to apply overwhelming force.

THE UNIFYING ROLE OF OPERATIONAL ART

The operational level of war at sea introduced as doctrine in 1994 by the Commandant of the Marine Corps and the Chief of Naval Operations is useful. It promotes congruence between campaign planning and execution. It heightens awareness of operational logistics. It clarifies the roles of theater commanders. It disciplines policy and strategy, by showing that until a strategy is tested by

campaign analysis and fleet exercises it is only a hypothesis and a desire. It countenances open publication of a strategy, while leaving room to develop secret operational plans for its execution.

We have seen that a useful way to appreciate how naval operations differ from strategy and tactics is to describe their distinguishing constants, trends, and variables. We have observed that the conduct of a successful maritime campaign falls outside the explanatory three levels of warfare but instead must be an artful, integrated web of decisions and actions.

At the tactical level, future plans must recognize the impending influence of robots and cyber operations in the missile age of warfare. We have inferred that these changes will lead to a more distributable fighting force of scouts, submarines, ships, and aircraft configured for mutual support and survival. The future fleet must be capable of safeguarding the movement of worldwide commercial shipping and of achieving command of any sea—eventually. Smaller, offensively potent elements that will probably constitute the next battle fleet may also serve as "cruisers" and part of "the flotilla." We will not know until our strategic aims are clearly stated and the fleet is designed. Then campaign analysis will be able to test the tactical employment as well as the operational deployment of future naval forces.

Some strategists and policy makers may wish to arrange the six strategies in a grand mosaic. For example, a strategy against terrorists sometimes heard is "homeland defense, overseas offense." A comprehensive antiterrorist strategy will embrace components of irregular warfare, cyber operations, and homeland defense. There is nothing wrong with this ultimate goal, but our purpose here is not to arrive at a comprehensive strategy. Our purpose has been to illustrate the vital role of operational art in testing every strategy.

NOTES

1. Epigraph from U.S. Navy Dept., *Naval Warfare,* Naval Doctrine Publication 1 (Washington, D.C.: 28 March 1994) [hereafter NDP-1 (date of revision)].

2. NDP-1 (March 2010).

3. Ibid., pp. iii, 15–18.

4. Julian Corbett, *Some Principles of Maritime Strategy* (1911; repr. Annapolis, Md.: Naval Institute Press, 1988).

5. Bradley Fiske, *The Navy as a Fighting Machine* (1916; repr. Annapolis, Md.: Naval Institute Press, 1988), p. 220. In the third section we will discard Fiske's ideal of a single controlling mind, but the metaphor of a navy as a complicated fighting machine is near-perfect.

6. J. C. Wylie, *Military Strategy: A General Theory of Power Control* (Piscataway, N.J.: Rutgers Univ. Press, 1967; repr. Annapolis, Md.: Naval Institute Press, 1989), p. 43. The reprint has an introduction by John Hattendorf, a postscript by Wylie, and a short essay by him from the U.S. Naval Institute *Proceedings* entitled "Why a Sailor Thinks like a Sailor." It should be no surprise that Wylie immediately goes on to say ground forces have a different mind-set.

7. Two excellent authorities are Michael Vlahos, "Wargaming, an Enforcer of Strategic Realism: 1919–1942," *Naval War College Review* 39, no. 2 (March–April 1986), pp. 7–22; and E. S. Miller, *War Plan Orange: The U.S. Strategy to Defeat Japan, 1897–1945* (Annapolis, Md.: Naval Institute Press, 1991).

8. This is not the place to elaborate on the techniques and successes, but a comprehensive discussion of the various methods of campaign analysis to support planning at the operational level may be found in Jeffrey Kline, Wayne Hughes, and Douglas Otte, "Campaign Analysis: An Introductory Review," in *Wiley Encyclopedia of Operations Research and Management Science,* ed. J. Cochran (Hoboken, N.J.: Wiley, 2010). For a primer describing methods used for every manner of defense decision making, from tactical to policy and from military operations to programming and budgeting, see Wayne P. Hughes, Jr., ed., *Military Modeling for Decision Making,* 3rd ed. (Alexandria, Va.: Military Operations Research Society, 1997).

9. John Arquilla, *Dubious Battles: Aggression, Defeat, and the International System* (Washington, D.C.: Crane Russak, 1992). Arquilla had at one time proposed as its title "Why Losers Start Wars."

10. P. H. Colomb, *Naval Warfare: Its Ruling Principles and Practice Historically Treated* (1891; repr. Annapolis, Md.: Naval Institute Press, 1990); Frank Uhlig, *How Navies Fight: The U.S. Navy and Its Allies* (Annapolis, Md.: Naval Institute Press, 1994).

11. For the "seat of purpose," see the author's *Fleet Tactics and Coastal Combat* (Annapolis, Md.: Naval Institute Press, 1999), pp. 34–35.

12. Hughes, *Military Modeling for Decision Making,* app. B. (The epigraph appears on p. 87.) The sets are from Capt. Stuart Landersman, "Principles of Naval Warfare" (thesis, Strategic Studies Group, Naval War College, Newport, R.I., 1982), app. E; and Barton Whaley's study of deception and surprise, *Stratagem: Deception and Surprise in War* (Boston: Artech House, 1969), pp. 122–26.

13. A. T. Mahan believed that the trends of new technology changed tactics and the nature of combat but that the constants of strategy and sea power were "laid as upon a rock." He was wrong, as World War I demonstrated within thirty years after he reached this conclusion in his famous *The Influence of Sea Power upon History, 1660–1783.* There were unanticipated *results* in the sea battles of World War I, but there were almost no changes in fleet *tactics.* The formations, screens, and other doctrinal particulars of the British and German battle fleets were employed as planned. The big changes were strategic (i.e., operational), and they were brought about by new technology, among them the effects of U-boats and mines, the coming effects (not fully developed) of aircraft, and the effects (almost invisible and unnoticed) of wireless and wireless intercept.

14. The signal of that transformational change in 1967 was as tactically indicative and operationally consequential as had been the abrupt arrival of the aircraft-carrier age, signaled by the sinking of anchored Italian battleships in air attacks at Taranto in November 1940 and of two British capital ships under way off the Malay Peninsula in December 1941.

15. See Hughes, *Fleet Tactics and Coastal Combat,* pp. 172–73, 224–27. To keep a long essay from growing longer I have omitted other examples some readers may think of.

16. Otto Bubke, *Clausewitz and Naval Warfare* (Bergisch Gladbach, West Ger.: Federal Armed Forces Office for Studies and Exercises, August 1987).

17. There is a third, but tactical, advantage of a superior navy—geographical effects at sea are muted or absent. There are no defensive positions as they exist in land combat, so a small initial advantage in combat power is more likely to be decisive. John Arquilla noted in *Dubious Battles* the case of a land power whose naval leaders spoke boldly of what they would do until the war started and then abruptly turned cautious.

18. Rates of advance of land forces are more complicated and variable than at sea. In 1990, R. L. Helmbold completed a comprehensive four-volume study that will likely never be exceeded in its thoroughness. For our purposes the first volume is the most relevant: *Rates of Advance in Historical Land Combat Operations* (Bethesda, Md.: CAA, June 1990). There is nothing comparable published on the rate of movement of naval forces at sea, and probably there need not be.

19. For a more detailed look at the movement advantage of ships, see Wayne P. Hughes, Jr., "Naval Maneuver Warfare," *Naval War College Review* 50, no. 3 (Summer 1997), pp. 25–49.

20. Wylie, *Military Strategy,* see esp. chap. 3 and a subsequent appraisal (p. 101) found in a chapter, "Postscript: Twenty Years Later," written for the reprint edition.

21. Sandy Woodward with Patrick Robinson, *One Hundred Days: The Memoirs of the Falklands Battle Group Commander* (Annapolis, Md.: Naval Institute Press, 1992).

22. Another example was the Trafalgar campaign, in which Napoleon intended to seduce Nelson to the West Indies with Villeneuve's fleet, so that the French could dominate the English Channel long enough to get Napoleon's invasion army on English soil. But Nelson deduced Napoleon's operational aim and moved too fast for the French, leading to the destruction of the French and Spanish fleets off Cape Trafalgar, inducing Napoleon to abandon his cross-channel invasion and to campaign instead against Austria and Prussia in the east.

23. The short operational lives of *Graf Spee* and *Bismarck* early in World War II show a failure in Germany to perceive this transformation.

24. There were two decisive fleet actions in the Sino-Japanese War (1894), two in the Spanish-American War (1898), and two in the Russo-Japanese War (1905), but only one, the battle of Jutland (1916), in World War I. We dismiss several engagements, including Coronel, Falklands, Dogger Bank, and Heligoland Bight, as cruiser warfare or skirmishes. Before any more significant sea battles were fought, the battleship era was over.

25. Wylie, *Military Strategy,* pp. 77, 78, and 97 (the epigraph is found on p. 87). Wylie here is more general, saying the aim of strategy is to achieve some degree of control (or influence, or domination) for a purpose. A strategy, then, is "a plan for doing something to achieve some known end." Our working definition above avoids a long development, while

reflecting the way orders are frequently issued to operational commanders for execution.

26. We ignore raids by American carriers in the first six months, regarding them as a form of cruiser warfare.

27. Readers of the several drafts have sharpened this article. Most would have added points for which there is no space. One of the astute comments contrasted Nimitz's role with that of Adm. Isoroku Yamamoto, "who could have been of far more use had he not been in EMCON [i.e., radio silence] aboard *Yamato*. . . . The person in the best position to make a decision [must put himself where he can] do so."

28. Far more casualties were suffered on both sides from sickness than from combat. On the Japanese side, by December the troops were literally starving, because we had almost severed their sea communications.

29. Thomas Cahill, *How the Irish Saved Civilization* (New York: Random House, 1995).

30. For example, NDP-1 (March 2010), pp. 25–30.

31. U.S. President, *International Strategy for Cyberspace* (Washington, D.C.: May 2011); and U.S. Defense Dept., *Department of Defense Strategy for Operating in Cyberspace* (Washington, D.C.: July 2011).

32. Vice Admiral Cebrowski (1942–2005) was, especially as President of the Naval War College (1998–2001) and after retirement from active duty as director of the Office of Force Transformation in the Department of Defense, a leading advocate of the broad transformation of the U.S. military, especially along the lines of the concept of web-based network-centric warfare. See James R. Blaker, *Transforming Military Force: The Legacy of Arthur Cebrowski and Network Centric Warfare* (New York: Praeger, 2007).

33. The poor estimates of casualties and time to completion are nothing new, but they demonstrate the need to pursue a war's design and objectives to a conclusion despite uncertainties.

THE NEW NORMALCY

Sea Power and Contingency Operations in the Twenty-First Century

Captain Robert B. Watts, U.S. Coast Guard

In September 1994, the Caribbean nation of Haiti burst into political unrest that drove twenty-six thousand migrants out to sea on board overcrowded and unseaworthy craft in an unprecedented mass migration to the United States. Several months later, over thirty thousand Cubans followed suit, attempting to reach the mainland on literally anything that could float. On 31 August 2005, a "weapon of mass destruction" in the form of a category-five hurricane exploded in the Gulf coast city of New Orleans, killing over 1,300 citizens and forcing the evacuation of tens of thousands. Finally, on 20 April 2010, the Deepwater Horizon exploratory oil rig exploded, heralding an unprecedented environmental disaster whose final impact has yet to be determined.

What these events shared, with their catastrophic nature and international impact, was a link to the sea. Although vastly different in cause, circumstances, and scope—ranging as they did from a man-made political event to recovery from the wrath of nature—these crises all saw a significant application of sea power in reaction and recovery operations. Given the inherent flexibility of sea power and the vast naval capability of the United States, this would seem appropriate. There is little doubt that sea power is a tremendous asset in dealing with crises, in terms both of the ability to respond rapidly and of the capacity for long-term sustainability in recovery operations on-scene. The arrival of a fleet in a contingency essentially brings a floating, self-contained city into the area—a mobile source of supply, command and

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control, and multidimensional capability. The rapidity with which modern sea power can be deployed and its long-term sustainability make it seem tailor-made for dealing with a large-scale crisis.

Naval forces have responded to a host of contingencies worldwide throughout the long history of U.S. sea power. During the Cold War, these responses varied in type but usually relied on, or set the scene for, some direct or indirect application of combat power.[1] But today's crisis operations are far more complex and infinitely more diverse, presenting sea power with challenges and scenarios in which it would not have been applied in the past. This tendency has been reflected to some extent in current doctrine that seeks to expand noncombatant sea-power scenarios like humanitarian assistance and domestic response;[2] recent experience, however, has demonstrated that crisis-contingency events, especially in the domestic setting, extend far beyond the scope of familiar mission sets.

Today, crises have become so magnified that the problem must be considered in an entirely new light—that of the "crisis contingency," a *number* of crises combined into an *event* of unprecedented scale and impact, the effects of which develop with unprecedented rapidity. Adapting to these events is challenging. Doctrinal exhortations aside, in practice such operations are often seen as, at best, secondary to maintaining readiness for combat. This makes difficult the task of adapting sea power from a purely war-fighting instrument to one capable of responding to the crisis contingency. The underlying reasons for this difficulty are complex; they include bureaucratic and service inertia, inapposite training,

MASS MIGRATION

Background. In the summer of 1994, indigent Haitian migrants began leaving the island on a heretofore unheard-of scale. While migration from Haiti via sea had always been familiar—averaging roughly 400–800 people per month— "mass migration" had only occurred once before, and then on a much smaller scale. The cause was a combination of political unrest and (unfounded) rumors that the United States had altered its immigration policies and would grant Haitians citizenship once they arrived. Over twenty thousand Haitians sailed in small, wooden, vastly overloaded, unseaworthy sailboats; the U.S. response quickly took on the nature of a massive search and rescue operation, with the overarching goal of strategic interdiction. In the ensuing months similar political rumors sent equally large numbers of Cubans to sea.

Sea-power forces. The sudden mass migrations required the immediate surging of the entire Coast Guard Atlantic fleet (some twenty-two major cutters), supplemented by Coast Guard Pacific assets and ten warships from the U.S. Navy. Twenty-four thousand Haitians and thirty thousand Cubans were interdicted and rescued, in Operations ABLE MANNER and ABLE VIGIL.

External/unique factors. The mass migration operations were widely regarded as successful in terms of the rapidity of response, operational coordination between the services, and number of lives saved. Social media played little role: the Internet was in its infancy, and unlike other contingencies there was no "land" component. Planning for a future mass migration has attempted to use the lessons of 1994 and expand the strategy to include other government agencies and the impact of new technologies on a migration event.

and a naval culture narrowly focused on a very specific combative tradition that is becoming increasingly irrelevant in real-world operations requiring flexible response.

Given the frequency of crisis contingencies, their potential strategic impact, and the commitment of resources effective response requires, it can be argued that crisis-contingency operations represent, if not a new mission set immediately, at least a new area of operations that naval forces will adopt as a core mission in the near future. Experience has demonstrated that crisis contingencies demand an entirely new set of skills, tactics, and techniques if sea power is to be applied to them effectively. But recent lessons in how this may be accomplished have not been readily learned. Sea-power theory remains largely focused on a vision of state-vs.-state warfare that is increasingly unlikely, while calls for sea power in response to crisis contingencies have increased dramatically.[3] A deliberate and dedicated effort to adapt old cultural viewpoints to the new reality is needed.

DEFINITIONS: THE NEW CRISIS CONTINGENCY

The link between sea power and crisis is not new; sea-power advocates have long argued that one of the primary missions of naval force is to stand ready, deployed, to respond to a wide variety of crises overseas. History is rife with examples of sea power performing ably in this role since the age of sail. But "crisis" is traditionally defined as some form of conflict; in the vast majority of these cases, crisis response was almost exclusively a matter of the traditional application of military ("kinetic") power or the threat of force against potential enemies.[4] Naval power is by tradition "hard" power, designed and trained for employment in combat; any "softer" elements usually revolve around intimidation ("gunboat diplomacy") in the national interest.[5]

New elements challenge this model. Although naval power is still used in the traditional way, crises have changed considerably in the modern era, as have the requirements for response to them. In recent times naval power has been used increasingly in nontraditional crisis response, not only internationally but also domestically, in a wide range of disasters, evacuations, mass migrations, and homeland security events. These operations have been outside the military sphere and have differed from those within it in a number of respects. Whereas in the past, coordination with agencies other than traditional military forces was rare or nonexistent, crisis-contingency operations are inherently multiagency. Prior to the information age, crisis operations were conducted largely out of the sight and mind of anyone but members of the immediate operational forces and their military chain of command, allowing for a considerable degree of flexibility and adaptability. Today these operations are carefully scrutinized in the political and public spheres, by means of almost instantaneous communication technologies.

KATRINA

Background. The "storm of the century" struck the Gulf coast on 29 August 2005. Although damage was severe along the entire coast, through three states, the most severe damage occurred when levees were breached at New Orleans, flooding the city and causing over 1,300 deaths. Although the National Response Plan was activated early in the disaster, government response as a whole received widespread criticism for delay and inefficiency.

Sea-power forces. As a domestic response agency, the Coast Guard ultimately deployed forty-two cutters and seventy-six aircraft prior to and immediately after the storm; it was credited with saving over thirty-one thousand lives during the evacuation. The Navy ultimately deployed nineteen ships and 346 helicopters to recovery operations. The widespread damage required a highly diverse response; offshore operations primarily focused on support to units ashore and on command and control.

External/unique factors. The Defense Department involvement was intensely controversial. According to the National Response Plan, disasters are primarily the response of affected states until such time as their assets are overwhelmed and federal assistance is requested. Even then, federal assistance may not take the form of military forces. During Katrina, there was inadequate understanding of how the plan was meant to work, delaying a formal request for federal assistance. Although National Guard units were on the scene quickly (largely due to the efforts of an individual commanding general), Navy forces were not committed until midweek, and even then piecemeal. Significant elements of sea power (hospital ship, combatants, and a carrier) were not assigned until well after the event and in the wake of enormous public pressure for increased federal presence. These forces ultimately contributed to the long-term recovery operation, not initial response.

The days of a military-only response where public reaction could wait for a prepared briefing are long past. These elements and others demand a new definition for these diverse operations to manage the modern crisis contingency.

What is a crisis contingency? Crises happen every day throughout the world, and they obviously cover a wide range in terms of impact and required response. Not all of them rise to the level of a crisis contingency. In the broadest sense, crisis contingencies can be defined by their size, speed, and impact. Crisis contingencies happen on a grand scale, and they happen quickly; in the current vernacular, they are "wicked" problems.[6] The actual incident may be anything within a broad range of possibilities, including social or political crises (such as mass migrations), a natural or man-made disaster, or an environmental event. Nonetheless, crisis contingencies share a number of elements that are significant for the employment of sea power. Scale and impact are all-important. A crisis contingency may begin as a localized event (such as the Deepwater Horizon oil spill, which initially was thought to be contained within a small geographic area); it has the potential to spread to theater-level proportions ultimately requiring massive response. Second, the crisis and its effects unfold and ramify with a speed that outstrips the efforts of traditional "first responders" and local emergency management agencies. Third, the crisis contingency affects some element of the national strategy or threatens national or potentially international security. Finally, the

complexity of the crisis demands response across the power spectrum, of which sea power is but one (albeit important) part.

In addition to these strategic elements, a number of other characteristics are unique, collectively, to a crisis contingency.

Short Notice. Modern crisis contingencies tend to afford little warning of their impact on the national psyche and the demand they will pose. These factors would seem obvious. Speed, however, has become all-encompassing with respect to not only the suddenness of the actual event but also the rapidity with which, due to the impact of modern communication methods, it is seen and magnified in the public sphere. Mass communication has made these events completely transparent and accordingly drives action into the political realm. It is an unfortunate reality that the camera often does not convey reality, and information instantaneously broadcast and interpreted on the Internet—by just about anyone —is likely to be distorted or untrue.[7] An event magnified in this way creates an almost instant public demand for action and, very soon after, a political demand for response. Even in cases where sea power is already poised to respond, political will can change the nature of its response or demand the use of assets not originally intended, making effective planning extremely difficult.

Surge Requirements. Crisis-contingency operations almost universally require immediate surges of force into affected areas. This requirement can be problematic with regard to the availability of forces and operational expertise, especially in the domestic arena.[8] Naval forces are deployed forces. The United States positions naval forces worldwide, poised to respond to overseas crises within a very short time, primarily with shows of force or applications of kinetic power. Crisis contingencies, however, have entirely different requirements, both operationally and materially, requiring tailored forces trained and supplied for specific types of responses that are not kinetically based. This is obviously a problem if the forces are already committed elsewhere. Even sea-power assets that traditionally focus on domestic operations (such as Coast Guard cutters) have to be redirected and assigned alternative missions, which can be very difficult to do on short notice, given established deployment cycles. The demands of normal overseas and domestic missions are such that ships in port are likely to be undergoing extensive maintenance and therefore are not readily available without significant operational degradation.[9]

Intense Interagency Involvement. As crisis contingencies are extremely diverse, responses to them are often very wide-ranging, relying on agencies focused on specific elements (food, shelter, etc.) outside the familiar military realm. This is a relatively new factor in contingency planning and response, although government agencies have always existed to deal with various aspects of crises, with

emphasis on interagency coordination common in the aftermath of 9/11.[10] This is not characteristic just of crisis contingencies but is evident across the entire spectrum of conflict. The U.S. approach to irregular warfare, for example, now stresses an interagency combination of "hard" and "soft" power overseas. Executive-branch departments (such as State) have found themselves engaged in operations (such as provincial reconstruction efforts) completely outside their traditional paradigms. Domestically the Department of Homeland Security stresses an "all of government" interagency approach, mandating coordination among its twenty-two subordinate agencies in both planning and execution.[11] While the interagency approach has the advantage of bringing specific areas of expertise to bear, it increases enormously the problem of operational coordination. This is most obvious in the civilian-military context, where the inherent differences between military and civilian-agency culture are often magnified. But even within government, federal, state, and local agencies, bureaucratic coordination problems are immense; these groups often do not speak the same administrative languages, let alone share operating procedures or equipment.[12]

Flexibility and Adaptability. Crisis-contingency operations are complex, diverse, and subject to a rapidly changing environment. These factors demand flexibility and adaptability in both planning and response. Of course, flexibility and adaptability are inherent in sea power itself. But crisis-contingency operations exhibit a diversity that challenges mobility and versatility in a number of unique ways. Crisis contingencies are not only diverse but "new," as elements of the post-9/11 paradigm. Planning has traditionally relied on experience, combined with due consideration of new capability, but changes have been so rapid since 9/11 that the value of "lessons learned" in the past has been greatly lessened.

DEEPWATER HORIZON

Background. On 20 April 2010 the Deepwater Horizon (DWH) oil rig exploded, killing eleven workers and creating what was initially perceived as a minor oil leak. This initial assessment soon changed to a "spill of national significance," automatically triggering federal response. Ultimately, it was estimated by CNN that 185,000,000 gallons of oil had been spilled.

Sea-power forces/external factors. Lessons are still being correlated and analyzed for the DWH oil spill. However, a number of strategic elements are immediately apparent. The initial surge response proved inadequate; the size of the disaster quickly required massive reinforcements of interagency personnel. The sea power employed during this event was quite different from that of previous incidents; ships offshore provided command and control but also operated with a host of local, state, and federal entities created to deal with the event, requiring heretofore unheard-of flexibility. Moreover, the politics were almost overwhelming throughout the event, as local, state, and federal levels each tried to determine appropriate spheres of control while responding to almost instantaneous social and traditional media analysis. The intense political pressure and influence on tactical operations that resulted made this operation truly representative of the new normalcy.

Although, for example, the United States has faced both mass migrations and hurricanes in the past, it was not then attuned to, and therefore did not draw, conclusions addressing the political complexities of interagency coordination or the rapidity of public communications and media; historical lessons of the kinds needed now are unavailable. Operational forces often find themselves in situations without relevant precedent (such as the effective destruction of an American city, as in Katrina). This means that effective response to these events requires corporate flexibility, adaptability, and initiative—characteristics that are not normally associated with government bureaucracies.

Increasing Public Scrutiny. Perhaps no other factor is more influential in modern crisis-contingency operations than the immediate flow of information into the public sphere. This goes far beyond reporting and analysis by traditional media. Although media portrayal of operations has been a factor in modern military planning since Vietnam, the incredibly rapid rise of the Internet and of information-sharing vehicles in social media has created an entirely new paradigm that goes beyond simple transparency. Today it is possible not only to view operations in real time but also to promulgate information about them worldwide for almost immediate commentary and analysis. This ability has had enormous influence on both military and crisis-contingency operations. In Iraq, for example, the actions of a small group of soldiers at Abu Ghraib, when viewed in the global context through the amplification in the social media, directly affected national strategy.[13]

In hindsight, the technology that revealed what was going on at Abu Ghraib was a small taste of things to come, for the pictures used there were simple images. In 2005, live video feed sent to the social media had an enormous impact on Katrina response operations, quickly fostering the impression (rightly or wrongly) that the government was wallowing in incompetence. During the recent Deepwater Horizon oil response this effect was magnified significantly, not only through multiple manipulations of the social media but also owing to a growing use of the medium to speculate on a wide range of conspiracy theories concerning government actions, all of which had to be addressed in a frenzy of government briefings and presentations designed to maintain operational credibility.[14] The rapidity with which this information was generated, combined with the ability to misinterpret or propagate it for personal or political gain, constituted an entirely new distraction that had to be addressed by operational forces, so much so that significant capability was diverted for this purpose. These factors bring us to the final, and perhaps most significant, element of the modern crisis contingency.

The Political Element. Clausewitz is perhaps most famous for his often-quoted view of the relationship between war and politics, a relationship that has long

been subject to fierce debate in military and academic circles. But in terms of a crisis contingency—arguably a unique form of conflict—there is no doubt of the influence of the political sphere. The instant availability of information (real or imagined) as noted above makes crisis-contingency operations intensely political at every possible level, creating a truly remarkable situation for operational forces. This is evident in two distinct areas: the creation of a political picture from "below," and direct intervention from "above."

Information generated from below—that is, from the Internet, social media, or individuals not involved in the response—creates immediate and direct political pressure as rumors or innuendo intensify into a "viral" event. Politically this creates the tendency to focus on events that are extremely "tactical" but very public, slowing coordinated operations to a crawl and making strategic planning and action difficult or impossible; forces deployed in the crisis can become so focused on tracking down images or rumors that they lose the "big picture" completely. This tendency is exacerbated by the ability of senior officials (both military and civilian) to communicate to all levels of the chain of command, directly and instantaneously. This effectively allows the head of an agency or a senior member of government to direct tactical operations while bypassing the established chain of command. This effect has been noted and complained of in combat arenas since the Vietnam War, but today the information technology that enables it has become vastly more powerful and pervasive. Whereas twenty (or even ten) years ago a response element would have had to answer only to its immediate superior, it is now not uncommon for field units to receive messages, questions, and tasking directly from the highest levels of their organizations or the government, directing or insisting on being kept constantly informed of the narrowest and most detailed matters.[15]

These core elements are present to various degrees across the full range of crisis-contingency operations, from mass migrations to natural and man-made disasters. While their extent and impact vary, all share a number of strategic commonalities: they are relatively new, present significant challenges to strategic planning and response, and potentially represent "game changing" effects. These elements must be considered when examining how sea power can contribute.

SEA POWER IN THE CRISIS CONTINGENCY

Sea power means many things to many people. Historically in the United States, "sea power" has been viewed in the Mahanian context of large, conventional, naval forces operating far "forward" in foreign waters either to influence international events or to apply kinetic power.[16] This has been an evolutionary process as the United States emerged as a world power and developed a large, "blue water"

navy to ensure freedom of the seas and represent the nation's global interests. Although American sea power in this sense certainly has diverse components (Navy, Marines, Coast Guard), the general paradigm of sea power is one of large ships operating overseas in these traditional roles.[17]

Sea power possesses a number of characteristics that have been historically consistent, especially mobility and flexibility. The sea remains the great global common that allows for the deployment of national power relatively quickly— the movements of ships are restricted only by adverse environmental conditions or international law. Two modern elements, sustainability and comprehensive command and control, have proved very successful in naval operations during time of war. All these factors can be key to success in crisis-contingency operations as well, but adapting them to that purpose has been problematic.

Sea power in contingency operations is by necessity naval power on a fleet scale—responses to crisis contingencies by single ships or aircraft are not sufficient —but it is naval power with a difference, in that it is not for kinetic operations but rather is tailored to some extent for the demands of the specific contingency. Sea power employed in response to a mass migration, hurricane, or environmental event should be as diverse as the contingencies themselves—and it is, in theory. But theory can fall short when butting against practical and political barriers. The problem becomes apparent when examining four advantages of sea power—mobility, flexibility, sustainability, and command and control—vis-à-vis the modern crisis contingency.

Mobility

The inherent mobility of sea power means largely what it does in the traditional role—modern technology allows global reach in three dimensions and almost instant operational coordination worldwide. But the primary barrier to mobility in crisis-contingency operations is not technological. If mobility is to be exercised, ships must actually sail, and it is here—in the commitment of resources to a crisis —that things become culturally problematic. Despite the need, the answer to a crisis contingency is not always to employ sea power immediately. This cultural hesitancy has two aspects.

The first is so deeply ingrained in the American psyche that it is more a matter of legend than of practical discussion. The United States has a long-standing tradition of rejecting the use of military forces in the domestic context, a rejection that dates back to the Revolution. It was codified in law with the passing of the Posse Comitatus Act of 1878, which directs that military forces (specifically the U.S. Army) cannot engage in domestic law enforcement.[18] The legislation is often misinterpreted as meaning that *any* domestic use of military forces is illegal; that is not the case, but it is nevertheless widely believed in both civilian and military

circles.[19] Thus before naval forces can be committed to a crisis, a comprehensive legal review is often demanded, something that takes time—time that is usually not available.

Another cultural barrier arises from service ethos. Bluntly, warships are designed and train to fight. In the modern high-tech era, naval warfare is a very specific (and expensive) proposition. It demands very sophisticated and specialized equipment. The radar on an Aegis cruiser, for example, is exceptionally good at tracking and destroying enemy aircraft—but only that. In a crisis contingency that marginalizes that purpose of a platform's defining systems, the purpose of the platform itself could be called into question. According to this logic, if a vessel is employed (albeit successfully) for a purpose for which it is not designed, the door is opened for its increasing use for that purpose and not its proper one. In the grand scheme of things, warships used for other purposes are not training for war; in the short term this leads to a loss of readiness for combat, while in the longer term it could mean the elimination of platforms altogether in favor of others more suitable for noncombat missions. Although this seems to be a largely philosophical argument, in a shrinking budget environment it is not without a certain politically compelling logic.

The effects of these factors are not insignificant. In recent crisis contingencies (the mass migration operations of 1994 and Katrina) the arrival of naval vessels was delayed while legal and operational impact issues were addressed, in the Katrina case so long as to become a national embarrassment.[20] Bureaucratic reasons, not materiel, were the culprits, ultimately to the detriment of the response. Hesitancy can be fatal in an operation requiring rapid response, and culture and bureaucracy can conspire to encourage just that.

Operational Flexibility

Naval forces operating in combat demonstrate a remarkable flexibility with respect to a host of missions—deep strike, amphibious operations, coordinated air campaigns, etc. Complete control of the "three dimensional" battle space in a wide range of operating environments is a well honed and established capability, one that is constantly practiced and demonstrated. But crisis contingencies do not represent any such operational environment, and that presents a major challenge to forces whose skills are finely honed for war.

Flexibility in the strategic sense is largely a matter of planning and creating a successful force mixed to deal with the specific campaign and coordinating the operations of units toward a common objective. Naval forces sailing into a battle area will be tailored to meet the mission they will carry out there (an amphibious assault, as opposed to a strike, for example), but there is little experience available in tailoring forces to meet a modern crisis contingency and its challenges. History

plays a part in this; crisis contingencies are sufficiently rare that determining what forces should be used is largely a matter of strategic speculation that is, in turn, subject to a host of political and cultural factors.

For example, because the requirements of worldwide deployment as established by the national military strategy remain in place, how to be ready for a crisis contingency while still meeting operational commitments is a conundrum demanding engagement at the highest planning levels, one that raises questions with no easy answers. Should, for example, an aircraft carrier be used as a contingency support platform vice a strike platform overseas? How should its mission capabilities be modified? What are the ramifications for overseas operations and strategy in the long term? Even when forces are identified, ships may be required to surge on very short notice, but as noted previously, defining an appropriate state of readiness in the face of extensive maintenance commitments is problematic. Even these barriers to strategic flexibility do not begin to address the complexities of specialized training for a contingency or deal with "the interagency" —which we shall consider below.

Sustainability

Contingencies require interagency support in forms foreign to many traditional military operations. This presents an interesting paradox. Simply put, most agencies that are designed to deal with crisis contingencies are not military yet often require the support of operational capabilities that only the military can provide on the scale required. The needs can be fantastically diverse. Agencies working on the ground in a contingency require not just food and shelter but also the means to coordinate their actions with other agencies and to perform a vast number of administrative tasks; they often require transport and, in some cases, protection. Support requirements are sometimes not limited to government agencies; nongovernmental organizations (NGOs) have become significant participants in both national and international contingencies.[21]

Some of the support required in a crisis contingency is fundamentally different from that of sustained combat, hinging on humanitarian-style operations (rescue, rebuilding, etc.) and a myriad of factors almost unknown to military planning. Support is not just a matter of transporting and stockpiling goods; ships can certainly become floating warehouses and transports easily enough. But the reality is that modern logistics is difficult even for regular military operations, involving highly coordinated processes that maximize space availability and combat effectiveness and must be administered by extensively trained personnel. Unfamiliar support requirements and materials outside the traditional military inventory can make things extremely challenging. Without aggressive advance planning and interagency cooperation, as well as extensive training for

these types of operations, there is considerable potential for strategic failure. But again, this type of detailed planning takes time, effort, and funding, and it runs hard against the cultural barrier of dedicating warships to training for war and conducting operational deployments overseas.

Command and Control

The modern battle fleet is probably the best example of technology optimized for command and control. Today a naval combatant is capable of virtually instantaneous global communication and coordination. This connectivity is mobile, extensive, reliable, and generally independent of facilities ashore that could be constrained by adverse conditions or be destroyed. All this would seem tailor-made for the crisis contingency. But there are two immediate and significant problems: interoperability with typically unknown and potentially incompatible systems, and an almost unlimited demand for information.

Despite attempts to correct the glaring deficiencies that were revealed during 9/11, interagency interoperability, especially in the communications realm, remains a persistent problem.[22] Incompatibility between military and civilian systems is bad enough in local contingencies; in a crisis contingency that covers potentially hundreds or thousands of miles it can become a "confusion multiplier" on the theater and national levels.

The inability of agencies and groups to communicate is a difficult problem but one that can be solved through initiative and inventiveness. The inordinate demand for information in a crisis contingency is another matter. As noted, these operations are inherently political, owing to the constant and often immediate scrutiny they receive. Katrina generated hundreds of information requests from higher authorities that had to be vetted, analyzed, and answered, rapidly and in detail; in the Deepwater Horizon operation, these numbered in the thousands.[23] Information management in both cases was so vast a problem that it required redirection of effort at least, and at worst threatened to shut down operations.[24]

The inherent communications capability of deployed sea power makes it a natural communications hub for coordination of operations ashore and the focal point for response to the demand for information from the political sphere. But without prior planning and anticipation of the volume and intensity of the communications requirements it is debatable whether any standard command-and-control node will be capable of meeting the demands of the crisis-contingency environment.

This completes a somewhat cursory overview of the challenges that the elements of the modern crisis contingency present to the traditional components of sea power. Given that these operations will likely increase in both frequency and

complexity in the future, we now turn to how sea power can adapt to meet this new challenge.

THE WAY AHEAD

There is little doubt that the inherent operational and strategic capabilities of sea power make it valuable both in initial response to crisis contingencies and as an anchor for recovery efforts that rely on sustainability and effective command and control. Despite barriers to its employment and operational difficulties, sea power has played a significant and effective role in contingencies in the past. But the world is changing, and the way ahead will not be easy. If sea power is to adapt to the challenges of the new crisis-contingency environment, a number of steps must be taken.

Formally recognize the challenges of the new normalcy. Effective use of sea power in crisis-contingency operations demands a response that is both tailored and specific to the contingency. Fleet power in the area can provide value simply by being present—after all, ships can certainly adapt to meet immediate tactical needs—but real value is derived only by planning that maximizes operational and strategic effectiveness in a wide range of situations. This in turn demands recognition of crisis contingencies as a core naval mission, requiring training and preparation at the level of (or perhaps exceeding) those dedicated to preparation for combat. While this prospect has been addressed to some extent by the *Cooperative Strategy for 21st Century Seapower,* actual commitment to these types of operations is still unclear. For the future, planning for crisis contingencies must not only become a priority but be moved to the forefront of doctrine and training.

This will not be an easy task. Overcoming cultural values alone will be an enormous hurdle, amounting to a shift of over a hundred years of blue-water, Mahanian tradition to a more fluid mind-set that stresses the value of sea power in a multitude of mission areas. But the demands of the environment illustrate the need, and the idea is not without precedent. The U.S. Army, for example, stressed the large-scale conventional-warfare model until the demands of irregular warfare in the aftermath of 9/11 clearly illustrated the need for change, a change that is ongoing today.[25] This was accomplished only through a service-wide recognition of the need for change, a thorough analysis of the requirements, and a solid plan for implementation. This must be emulated by the naval services if they are to operate effectively in the crisis-contingency environment.

Procure ships that stress multi-specialization and multimission capabilities for crisis contingencies. Despite the end of the Cold War and significant reduction of the traditional threat, the United States continues to build large combatants designed primarily for fleet engagements against a symmetrically armed opponent. Given the global commitments the United States imposes on its navy and

the service's continued commitment to conventional operations, it is unlikely that this will change significantly in the near future. One could simply assume that large, capable combatants are inherently multimission and easily adaptable to the crisis contingency, but this is not entirely valid. Larger vessels that focus on overseas warfare missions (such as aircraft carriers and cruisers) do not necessarily bring multimission capabilities; in point of fact, the training requirements for these vessels and their operational commitments often make them increasingly specialized in their warfare mission areas.[26] Without dedicated design efforts and subsequent training, this will be a difficult pattern to break.

But this is an area that is ripe for change. Multimission capability relevant to the crisis contingency can be obtained materially by redesign of combatants so as to dedicate systems for this purpose. The littoral combat ship, for example, attaches specialized "modules" when required for various missions (mine warfare, antisubmarine warfare, etc.). This concept could be expanded to other combatants as a way of achieving some degree of specialization in crisis-contingency operations. But hardware is only a first step. Ship personnel must be trained in these forms of operations, when their mandated warfare training requirements are already enormous. This again will require a recognition of the importance of crisis-contingency operations vis-à-vis traditional warfare missions and then reevaluation of training requirements.

Train staffs for interagency operations. Training ships' crews to operate in diverse environments is one thing; training fleet operators and strategic planners, another. Despite the "all of government" approach taken to contingencies since 9/11, military forces still have limited experience in operating with other agencies, especially those focused on contingency operations.[27] It can be argued that the situation has at least been acknowledged and some steps have been taken for improvement—the *Cooperative Strategy for 21st Century Seapower* calls for improved interagency cooperation—but at the "operator level" there is still very limited understanding of how nonmilitary agencies work or of what level of cooperation would be required in various crisis contingencies.

This issue must be addressed not only among practitioners of sea power but throughout the government itself. This can be accomplished in two ways. The first is through a broad program of education. Various institutions pursuing Joint Professional Military Education (such as service colleges) have taken on the challenge with regard to homeland security, but they have focused on terrorist threats rather than the broad range of possible contingencies. Until a dedicated educational program is undertaken at all levels of government to stress interagency coordination in contingencies, forces will continue to arrive on the scene with limited understanding and direction and to be forced to improvise.

Operationally, fleets are directed at sea by staffs, with expertise in appropriate warfare areas. This concept can be expanded to crisis-contingency operations and responses. The Navy and Coast Guard have experimented with this approach in specific joint operations, including coordinated counternarcotics deployments.[28] Trained, deployable command-and-control cadres that can instantly address the requirements of a specific crisis contingency would be highly valuable. But again, a shift in service mind-sets would be required, ensuring that individuals are not only trained in this area but are given appropriate career incentives to do so.

Aggressively address information and knowledge management. As noted, the instant availability of information in crisis contingencies has led to a near obsession with tactical actions at the expense of strategic operations; senior officials, service secretaries, and heads of agencies and departments can and do reach directly to the lowest levels to direct or question actions on the ground. Warfare is no longer simply an extension of politics; it is now an almost instantaneous expression of the immediate political will.

It can be argued that this new element can be mitigated to some degree during actual combat operations (which to date are not continuously exposed to social media), but not so during a crisis contingency, and the effect is both immediate and potentially catastrophic. The infusion of constant, senior direction driven by tactical snippets of political information fundamentally changes the nature of operational response—and not for the better.

It would be naive to assume that this will change in the near future. But it must be addressed, probably with a new and aggressive effort to devise a cell, or system, to streamline knowledge management up and down the chain of command. As a dedicated communications node on the scene, the fleet is a natural locus. Ships might be assigned personnel trained directly in knowledge management working in designated communications spaces, streamlining the flow of information to a focal point within the command—potentially a new command element (with staff) specifically for knowledge management. The recent lessons of Katrina and the ongoing study of the Deepwater Horizon event provide plenty of examples, which need to be analyzed with the understanding that the problem will not be confined to the past. As communications and social networks improve and proliferate even more, it will only increase. It must be dealt with if operational forces are to be effective in crisis contingencies.

Sea power represents a well established and tremendously flexible means of projecting national power. For the United States it has traditionally taken the form of forwardly deployed forces ready to respond to a crisis with kinetic power or to engage in combat. The modern crisis contingency challenges this paradigm.

The strategic impact of crisis contingencies, the rapid demand for action, and the clear capability that sea power provides are indicative of a new normalcy. If sea power is to remain a viable component in future operations, it must adapt to the reality of the crisis contingency through a comprehensive review of capabilities, missions, and barriers to implementation. The world is changing; it is time for sea power to adapt.

NOTES

1. Joel Sokolsky, *Seapower in the Nuclear Age: The United States Navy and NATO, 1949–1980* (Annapolis, Md.: Naval Institute Press, 1991).

2. See J. T. Conway, G. Roughead, and T. W. Allen, "A Cooperative Strategy for 21st Century Seapower," October 2007, available at www.navy.mil/; repr. *Naval War College Review* 61, no. 1 (Winter 2008), p. 15, available at www.usnwc.edu/press/.

3. The debate concerning the role of the Navy in nontraditional, or irregular, warfare is intense and ongoing. See A. M. Fritz, *The Navy Role in Confronting Irregular Challenges* (Washington, D.C.: Center for Naval Analyses, March 2011), and R. B. Watts, "The End of Sea Power," U.S. Naval Institute *Proceedings* (September 2009).

4. Geoffrey Till, *Maritime Strategy in the Nuclear Age* (New York: St. Martin's, 1984), p. 257.

5. The term "gunboat diplomacy" is often narrowly (and negatively) defined as overt naval intimidation of various types used during the latter half of the nineteenth century by imperialistic powers. It is in fact a far more sophisticated concept and is still employed in various less threatening forms today. See James Cable, *Gunboat Diplomacy, 1919–1991* (New York: St. Martin's, 1994).

6. Richard Beinecke, "Introduction: Leadership for Wicked Problems," *Innovation Journal* 14, no. 1 (2009), available at www.innovation.cc/.

7. Farhad Manjoo, *True Enough: Learning to Live in a Post-fact Society* (New York: Wiley, 2008).

8. Michèle Flournoy and Kenneth McKenzie, Jr., "Sizing Conventional Forces: Criteria and Methodology," in *QDR 2001: Strategy-Driven Choices for America's Security* (Washington, D.C.: NDU QDR Working Group / National Defense Univ. Press, 2001), p. 185.

9. Following the 2010 Haitian earthquake, for example, the Coast Guard responded with twelve major cutters redirected from other missions or pulled from maintenance. Ten of them suffered operational casualties that limited use, three so severe a return to port was necessary. See Mickey McCarter, "USCG Commandant Addresses Budget Challenges in Annual Address," HSToday.us, 16 February 2010.

10. See Frank L. Jones, "Securing America from Attack: The Defense Department's Evolving Role after 9/11," in *U.S. Army War College Guide to National Security Issues,* ed. J. Boone Bartholomees, Jr. (Carlisle Barracks, Pa.: U.S. Army War College, Strategic Studies Institute, n.d.).

11. The primary Department of Homeland Security document for contingencies is its *National Response Framework* (Washington, D.C.: January 2008), available at www.fema.gov/. It mandates the use of NIMS (the National Incident Management System) for interagency coordination.

12. James Carafano, *DHS 2.0: Re-thinking the Department of Homeland Security* (Washington, D.C.: Heritage Foundation, 2004).

13. See "Abuse Scandal 'Terrible' for U.S., Powell Concedes," Msnbc.com, 17 May 2004. The Abu Ghraib outcry reached the highest levels of the U.S. government. The concept of the actions of individuals in an environment of immediate media access was first raised by Lynda Liddy, "The Strategic Corporal: Some Requirements in Training and Education," *Australian Army Journal* 2, no. 2, pp. 138–48, available at smallwarsjournal.com/.

14. Thad Allen, *National Incident Commander's Report: NC252 Deepwater Horizon* (Washington, D.C.: National Incident Command, October 2010).

15. R. Charles Epperson, *A Perspective from within Deepwater Horizon's Unified Command Post Houma,* Deepwater Horizon Study Group Working Paper 11 (Berkeley: Univ. of California, Berkeley, Center for Catastrophic Risk Management, January 2011) [hereafter Epperson, *Perspective*], available at ccrm.berkeley.edu/.

16. Historically, the Mahanian concept of sea power through decisive battle was practically expressed in the building of fleets of battleships. This eventually morphed to the development of the carrier battle group, which today remains the mainstay of U.S. sea power. See Robert O'Connell, *Sacred Vessels* (Oxford, U.K.: Oxford Univ. Press, 1991), for origins of U.S. Mahanian sea-power philosophy, and John B. Hattendorf, *The Evolution of the U.S. Navy's Maritime Strategy, 1977–1986,* Newport Paper 19 (Newport, R.I.: Naval War College Press, 2004), for the development of modern carrier strategy.

17. See Frank Uhlig, Jr., *How Navies Fight: The U.S. Navy and Its Allies* (Annapolis, Md.: Naval Institute Press, 1994).

18. *Posse comitatus* is often seen in the public context as a triumph of civil libertarianism; the reality is far different. The Posse Comitatus Act of 18 June 1878 was originally passed owing to pressure from the "reconstructed" South to remove federal troops occupying the region in the aftermath of the Civil War, thus enabling the enacting of various "Jim Crow" laws to restrict minority voting. Although this act originally applied only to the Army (and in a very limited sense), it is extended by tradition to all federal armed forces. It is important to note, however, that the law does not—as is widely believed in both the military and civilian sectors—prevent domestic operations but only direct law-enforcement actions (arrest and detention) and so has (in theory) only limited application to crisis-contingency operations. See G. Felicetti, "The Posse Comitatus Act: Setting the Record Straight," *Military Law Review* 175 (March 2003).

19. See Craig Trebilcock, "The Myth of Posse Comitatus," *Homeland Security Journal* (October 2000).

20. This issue played out in the national media as the Katrina aftermath unfolded. Although the U.S. Coast Guard responded immediately to the crisis (and to much acclaim), it soon became apparent that the forces committed were being overwhelmed by the scale of the disaster. In the national and social media, questions began to be asked about the involvement of the Defense Department; one particularly embarrassing piece showed Navy helicopters conducting training missions in nearby Florida. Significant naval forces did not arrive on-scene until a week after the event; whether this delay was due to systemic or bureaucratic inertia is a matter of ongoing debate. See Steve Bowman, *Hurricane Katrina: DOD Disaster Response,* CRS Report for Congress (Washington, D.C.: Congressional Research Service, September 2005).

21. The importance of the involvement of NGOs in crisis operations, both domestically and overseas, cannot be overemphasized. In recent years NGOs have often been the first on the scenes of crises, and they are often far more coordinated than government agencies in their operations. The downside, of course, is that they often operate outside the sphere of direct government control, so requirements for their support are likely to appear suddenly and without warning. Moreover, long-term NGO support expectations can be unrealistic—and persistent.

22. The *9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks upon the United States* (Washington, D.C.: U.S. Government Printing Office, [2004]), available at www.gpoaccess.gov/, provides detailed examples of this problem for one specific contingency, as well as recommendations for a way ahead. For broader operations see U.S. Government Accountability Office [hereafter GAO], *Military Operations: Actions Needed to Improve DOD's Stability Operations Approach and Enhance Interagency Planning* (Washington, D.C.: May 2007).

23. The latter assertion is based on the author's personal experience.

24. See Epperson, *Perspective.*

25. There is a wide range of literature regarding the Army's shift in emphasis to irregular warfare. See T. X. Hammes, *The Sling and the Stone* (New York: Zenith, 2006), and David Kilcullen, *The Accidental Guerilla* (Oxford, U.K.: Oxford Univ. Press, 2009).

26. See Watts, "End of Sea Power."

27. GAO, *Military Operations.*

28. Assertion is based on the author's personal experience. The Coast Guard and Navy experimented with this during the 1990s with the formation of "Commander Task Group 4.1," a combined afloat element for counternarcotics coordination, a concept that was later expanded with the formation of Coast Guard Squadron 42, which specialized in broader, multiservice operations. Ashore, these operations are coordinated by the established joint interagency task forces in the north and west; see "Joint Interagency Task Force," GlobalSecurity.org.

THE AEGIS BMD GLOBAL ENTERPRISE

A "High End" Maritime Partnership

Brad Hicks, George Galdorisi, and Scott C. Truver

For more than three decades, beginning soon after the end of World War II, the United States and the Soviet Union faced off against each other. The concept of "mutual assured destruction"—MAD, the U.S. threat of massive retaliation to a Soviet first strike—became America's Cold War de facto strategic defense policy. In March 1983, however, President Ronald Reagan asked whether ballistic missiles could be destroyed before they reached the United States or its allies, thus catalyzing efforts for a national ballistic-missile-defense program that would undermine the need for MAD. That same year, the U.S. Navy commissioned USS *Ticonderoga* (CG 47), the first of what is to become a fleet of more than eighty Aegis warships. In 2012, these trends have converged, and Aegis ballistic-missile defense (BMD) is an increasingly important component of a robust national BMD System (BMDS).

National BMDS has morphed from President Reagan's original vision of a system to deter and, if necessary, defeat Soviet intercontinental ballistic missiles (ICBMs) to one focused on deterring or defeating shorter-range ballistic missiles fired at the United States or its allies and friends by rogue nations or terrorist groups. So too the "pillars" of the national BMDS have changed. As other air, ground, and space pillars have advanced in fits and starts, and as related programs have been initiated and, sometimes, canceled, the seaborne component of national BMDS has become an increasingly central component of U.S. regional ballistic-missile defenses. Aegis BMD is now moving toward a role in the defense of the American homeland as well.

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As more countries—many with hostile intentions toward U.S. allies in the Asia-Pacific region and Europe—have acquired the requisite technologies during the past three decades, many U.S. friends and allies have been obliged to contend with the threat of ballistic missiles armed with weapons of mass destruction (WMD). In northwest Asia, both Japan and Korea have built or are building Aegis BMD-capable ships. North Atlantic Treaty Organization (NATO) allies in Europe have been dealing with ballistic-missile defense through the alliance's Active Layered Theatre Ballistic Missile Defence (ALTBMD) program and, since 2009, also through the European Phased Adaptive Approach (EPAA), comprising "Aegis Afloat" and "Aegis Ashore."

This new approach now also includes forward-basing four Aegis BMD-capable warships in Rota, Spain. "With four Aegis ships at Rota, the alliance is significantly boosting combined naval capabilities in the Mediterranean, and enhancing our ability to ensure the security of this vital region," Secretary of Defense Leon Panetta noted on 5 October 2011.[1]

> These ships will also support NATO's critical efforts to build effective missile defense. Alongside important agreements that were recently concluded with Romania, Poland, and Turkey, Spain's decision represents a critical step in implementing the European Phased Adaptive Approach. The United States is fully committed to building a missile defense capability for the full coverage and protection of all our NATO European populations, their territory and their forces against the growing threat posed by ballistic missiles.

Today the steady growth of Aegis-capable ships in the U.S. Navy—as well as an increasing number of world navies fielding such ships—presents new opportunities and challenges. The portion of the Navy's fleet that is capable of ballistic-missile defense is increasing from twenty-one ships now to a planned ninety-four in 2024.[2] Given the well-publicized demand for these assets, Aegis BMD unquestionably is becoming an increasingly important component of BMD planning and operations of the unified commands' combatant commanders.

But some are questioning whether the Navy can afford to see multimission Aegis BMD ships abandon general-purpose, Navy-specific missions—such as air, surface, and subsurface defense and precision strike for carrier and expeditionary strike groups—to support the combatant commanders directly with their BMD capabilities.[3] Some view Aegis BMD through the same lens as they would the strategic ballistic-missile submarine program and ask whether Aegis BMD is a mission the nation needs but the Navy cannot afford. However, Aegis BMD is an increasingly important element of the nation's maritime strategy, and it differs from the ballistic-missile submarine in a way that enables Aegis BMD to satisfy both combatant-commander ballistic-missile-defense demands and Navy general-purpose requirements.[4]

Moreover, the Navy and the nation have an opportunity to leverage more fully Aegis BMD capabilities to provide territorial defense as well as protection of coalition naval task forces. The vision, first expressed in 2005, of a former Chief of Naval Operations, Admiral Michael G. Mullen, of a "thousand-ship navy"—now transformed into a Global Maritime Partnership (GMP), in which nations and navies increasingly work together to ensure security of the global commons—is reaching fruition as the U.S. Navy works with increasing regularity with coalition partners in global and regional partnerships. Because some of these countries are acquiring Aegis-equipped ships, a nascent "Aegis Global Enterprise" is evolving, in which navies work together to capitalize on the capabilities of these ships for integrated fleet air defense and even ballistic-missile defense.

The vast majority of GMP missions, however, have been on the "low end" of, or completely outside, the "kill chain"—target identification, dispatch of forces, decision and order to attack, and destruction of the target. Such tasks as humanitarian assistance, disaster relief, and antipiracy patrol dominate the shared mission set. With the increasing threat of ballistic missiles that can be armed with WMD, however, the Aegis BMD capabilities present in the navies of U.S. allies and friends can now provide the Global Maritime Partnership with a means to address the "high end" of the kill chain with combined, coordinated, ballistic-missile defense: the Aegis BMD Global Enterprise.

This potential is already manifest in the Asia-Pacific region in the close working relationship between the United States and Japan. Korea and Australia could well join this Aegis network soon, giving the four governments the means to address not only territorial BMD but also coordinated BMD of fleet units operating together. In Europe, plans are well along to provide robust territorial defense of European nations with ALTBMD and the EPAA. Together, these systems provide a nascent BMD capability today and promise an even more robust capability as the EPAA evolves over the next decade and a half.

But as demonstrated in Iraq, Afghanistan, and now Libya, NATO and the nations of Europe have equities often well beyond the territorial boundaries of the European continent. Also, a European military deployed beyond Europe's borders will always have a naval component. This is therefore a propitious time to begin to link European allies more completely into an Aegis BMD Global Enterprise in much the same way the U.S. Navy is linked to its Asia-Pacific partners —Japan today, Korea soon, and thereafter Australia in the near future—in a high-end Aegis BMD Global Maritime Partnership.

A BMD IMPERATIVE

The need for effective BMD has increased in the twenty-first century. More than thirty countries deploy ballistic missiles today, compared with only nine in 1972.[5]

Potential enemies possess both ballistic missiles and weapons of mass destruc-
tion, and today's rogue leaders view WMD as weapons of choice, not of last
resort. In 2007, the last year for which complete records are available, potential
adversaries launched 120 ballistic missiles in tests and demonstrations. These
foreign ballistic-missile launchings, especially in the short-to-intermediate-range
category, occurred particularly in the People's Republic of China, North Korea,
and Iran.

The broadened ballistic-missile threat, moreover, crosses strategic-, operational-,
and tactical-level boundaries. Since the inception of U.S. BMD systems in the
late 1980s, the main driver of their current versions—including Aegis BMD—
has been the threat posed by rogue nations like Iran and North Korea. Today, it
is Iran's organic missile development that poses perhaps the most immediate,
technically developed threat to the interests of the United States and its allies and
friends. Several midrange Iranian ballistic missiles have been launched over the
past several years.[6] In 2011, Tehran launched numerous ballistic missiles dur-
ing its GREAT PROPHET exercise. Some of these missiles were capable of striking
American bases in the region as well as Israel, the Arabian Gulf states, and Turkey.

The threat from Iran's ballistic-missile developments takes on new urgency
when juxtaposed with that nation's WMD program. Then–CIA director Leon
Panetta warned in 2010 that it could be a mere two years before Iran was able to
threaten other states with nuclear warheads mounted on ballistic missiles.[7] Like-
wise, the Defense Intelligence Agency has reported that Iran could field a WMD-
armed ICBM capable of reaching the United States by 2015.[8] Coupled with its
determination to acquire WMD, it is Iran's missiles that pose the gravest threat
to U.S. and allied interests and to Middle Eastern, South Asian, and European
allies—an assessment underscored by the International Atomic Energy Agency
in November 2011.[9]

Ballistic-missile threat planning at both the regional and strategic levels must
also take into account the Democratic People's Republic of Korea, which already
has conducted a nuclear weapon test. North Korea possesses a growing ballistic-
missile force that includes short-range Scud C, medium-range No Dong, and
intermediate-range Taepo Dong 1 missiles, some of which have been transferred
to other nations as well. South Korean defense minister Kim Kwan-Jin told his
country's parliament in June 2011 that North Korea may have already developed
nuclear warheads small enough for ballistic-missile payloads. Likewise, former
U.S. defense secretary Robert Gates in 2011 said that North Korea's missiles and
nuclear weapons would pose a threat to the United States within five years.[10]

The actual pace of Iranian and North Korean intercontinental-range weapon
development is still the subject of debate, at least in open sources. There is no

doubt, however, that the ballistic-missile threat at the regional or theater level is burgeoning. As the then director of the Joint Integrated Missile and Air Defense Organization, Rear Admiral Archer Macy, told a congressional subcommittee, "Congress and our warfighters have said the most pressing threat for our deployed forces today is the increasing number of Short Range Ballistic Missiles (SRBMs) and Medium Range Ballistic Missiles (MRBMs). Without going into classified details, suffice it to say that the sheer number and types of these threats grows [*sic*] daily and the nation needs to find a way to deal with them."[11]

As is the case with the ICBMs that they aim to develop, Iran and North Korea undoubtedly intend to create "strategic" effects with short-to-intermediate-range weapons in their own neighborhoods. In some scenarios, they expect their ballistic-missile forces to generate concrete, operational-level military effects as well, particularly in antiaccess and area-denial contexts.

Iran and North Korea are not alone in leveraging this aspect of potential ballistic-missile employment. China also is crafting an antiaccess/area-denial strategy for the western Pacific based in part on the operational-level use of ballistic missiles. As underscored recently in these pages, "China seeks the capacity to find U.S. aircraft carriers roughly a thousand miles from the mainland and to attack them with homing ASBMs (antiship ballistic missiles)."[12] The most prominent aspect of this threat is China's development of the world's first "carrier killer" ballistic missile, the DF-21D. Another commentator has declared, "The DF-21D is the ultimate carrier-killer missile."[13]

Indeed, as *The Economist* has pointed out, "The Pentagon has described China's programme as 'the most active land-based ballistic- and cruise-missile programme in the world.' Missiles are good value. Compared with a fully equipped aircraft-carrier, which might cost $15 billion–20 billion, a missile costs about $1m. . . . And American strategists are closely watching an experimental anti-ship ballistic missile with a manoeuvrable warhead, which could make it hard for American fleets to approach the Chinese shore."[14] A January 2011 *New York Times* editorial captured the level of concern regarding China's emerging capabilities:

> Beijing's drive to extend its military and territorial reach is making America's close allies in the region nervous and raising legitimate questions about American diplomacy and future military procurement. The commander of America's Pacific forces recently revealed that China could soon deploy a ballistic missile capable of threatening American aircraft carriers in the region. The Pentagon has a long history of hyping the Chinese threat to justify expensive weapons purchases, and sinking well-defended ships with ballistic missiles is notoriously hard. But what should rightly concern American military planners is not so much the missile but the new Chinese naval strategy behind it. China seems increasingly intent on challenging United States

naval supremacy in the western Pacific. At the same time it is aggressively pressing its claims to disputed offshore islands in the East and South China Seas. Washington must respond, carefully but firmly. The Pentagon must accelerate efforts to make American naval forces in Asia less vulnerable to Chinese missile threats by giving them the means to project their deterrent power from further offshore.[15]

Some would downplay the threat posed by China and the DF-21D missile, arguing that—as a result of the "Walmart Factor" that intertwines the two economies—state-on-state conflict with China is not likely.[16] However, China needs only to make the likely cost to the United States of intervening in western Pacific affairs—to counter Chinese threats against Taiwan or bullying of neighbors over disputed claims in the South China Sea—high enough to render intervention no longer a reasonable deterrent.[17] Moreover, China's increasing dependence on Mideast oil creates plausible scenarios in which it would export the DF-21D to countries like Iran. Given the marginal success of ongoing nonproliferation efforts, DF-21Ds could find their way to yet other governments or even to transnational or terrorist groups with animus toward the United States, its allies, or friends.

To counter the most pressing part of this spectrum of ballistic-missile threats—states already possessing WMD-armed ballistic missiles—the United States has fielded an initial national-level BMDS, integrating land, sea, air, and space elements. The first priority of the BMDS implementation strategy—establishing a limited defensive capability against North Korean ballistic missiles—has largely been achieved, with Patriot Advanced Capability–3 (PAC-3) batteries, the Ground-Based Midcourse Defense (GMD) system, the forward-deployed AN/TPY-2 radar, and Aegis BMD ships for long-range search, cueing, and engagement.

The Navy's contribution, built around the Aegis weapon system, to U.S. ballistic-missile defenses has grown in importance in recent years, even as national-level BMDS has expanded to encompass other potential threats. The Aegis BMD system has been integrated with fleet and joint force war-fighting standards and BMDS command, control, battle-management, and communications (C2BMC) elements. Aegis BMD interoperates with ground-, air-, and space-based sensors and other in-theater assets, including the Terminal High-Altitude Area Defense (THAAD) system.

The Aegis weapon system's adaptability has enabled the Navy to add improved hardware and software to successive Aegis "spiral" (phased) upgrades. The Aegis Combat System today consists of four major components: the AN/SPY-1 radar, the Aegis weapon system, the Mark 41 vertical-launching system (VLS), and the Standard surface-to-air missile family. Aegis BMD capability receives "block upgrades" every two years, increasing its capabilities at each step. The present configuration of Aegis BMD, Aegis 3.6, includes the BMD weapon system teamed with the advanced SM-3 Block IA missile.

The success of Aegis BMD arises from an acquisition strategy supported by a rigorous systems-engineering and integration approach and fueled by substantial and steady investment in baseline and upgraded system development. The Aegis weapon system represents nearly fifty years of research, development, testing, and real-world performance, and its missiles more than sixty years. All this undergirds Aegis BMD. This success can be seen in the results of its test program, which as of late 2011 has involved twenty-six live firings at sea since January 2002. These tests have become progressively more challenging and operationally realistic and have enjoyed unprecedented success: twenty-one hits in twenty-six shots, an 81 percent success rate, in spite of the fact that through 2011 the Aegis program accounted for only 10 percent of annual Missile Defense Agency (MDA) budgets.[18]

The twenty-fifth test—designated Flight Test Mission (FTM) 15—occurred on 15 April 2011, when the MDA conducted the first-ever "launch on remote" test of the system against an intermediate-range "separating target," a warhead separating from its booster missile. In FTM-15 the guided-missile destroyer USS *O'Kane* (DDG 77), with a standard Aegis BMD system, fired a Standard Missile–3 Block IA missile in response to remote data provided by a forward-based AN/TPY-2 radar. This pitted for the first time an in-service SM-3 Block IA missile against an intermediate-range (1,800–3,400 miles) modified Trident I/C-4 ballistic-missile target, an LV-2. The demands of this test were well beyond Aegis BMD's original design, which focused on short- and medium-range threats. The LV-2 had flown in two previous BMD live-fire tests but had not been hit—until FTM-15.

Importantly, FTM-15 used technologies and systems that are at sea and in service *today.* There were no changes to *O'Kane*'s BMD suite for the test. Moreover, the success unveiled new possibilities for Aegis BMD using technologies and systems already available. Also important about FTM-15 is that it linked the ship to remote sensor data to increase coverage area and responsiveness. Once this capability is fully developed, interceptors—no longer constrained by the detection range of the Aegis radar against an incoming missile—can be launched sooner and fly farther.

The twenty-sixth Aegis BMD flight test, FTM-16, occurred on 1 September 2011. The primary goal was to track and engage a separating ballistic-missile target with the Aegis BMD 4.0.1 Weapon System and the SM-3 Block IB missile, the block-upgrade successor of the SM-3 Block IA.[19] FTM-16 was the first flight test of the Block IB. While the test yielded no intercept, USS *Lake Erie* (CG 70) successfully detected and tracked the target and guided the SM-3. FTM-16 highlighted the difficulties and complexities of the ballistic defense mission. In accord with the Aegis "build a little, test a little, learn a lot" philosophy, the Navy and

the MDA will glean important information from FTM-16, incorporate it, and continue to advance Aegis BMD capabilities.

Aegis BMD's accomplishments are even more impressive in light of the complex technical challenges that all BMD systems must overcome. For example, THAAD went zero for six during the 1990s before achieving two hits. Then, after a five-year hiatus and redesign, the system achieved an eight-for-eight record. Likewise, the GMD system had eight successful intercepts in fifteen attempts. However, the two tests in January and December 2010 were failures; this performance was behind the MDA decision to restructure the GMD test program.

A "FOUNDATION OF GREATER COOPERATION"

Aegis BMD functions as an integral node in the overall, integrated national BMDS but also can operate independently to defeat ballistic missiles. Furthermore, Aegis BMD maintains this capability while also being able to carry out other naval warfare missions. This versatility makes Aegis BMD valuable as a component of an international effort to provide collective defense against ballistic missiles. The threat of WMD-armed ballistic missiles is no longer a U.S.-centric issue. During the past decade nations in Europe and Asia have increasingly looked for means to counter the emerging threat to their territories and forces. This presents new possibilities for the combined, coordinated, Aegis BMD enterprise.

The potential for a global BMD effort was highlighted in a 2009 report by the Independent Working Group on Missile Defense. It recommended limiting fixed, ground missile-defense deployments based on GMD in favor of expanding theater/regional defenses centered on sea-based missile defenses (along with Aegis Ashore, land-based SM-3 missiles, and THAAD system radars). The report recommended, "Equip additional U.S. vessels with the Aegis anti-missile system. Encourage U.S. allies equipped with Aegis/SM to do the same."[20]

The Foundation: Aegis Abroad

The diffusion of Aegis BMD capability abroad is occurring quietly. Governments that have made naval force-structure investment decisions based primarily on inwardly focused national interests have discovered that their investments also enable them to combine their resources in collective defense. As the 2010 *Ballistic Missile Defense Review* acknowledged,

> Other allies already own or are working with the United States to acquire specific capabilities, such as naval vessels equipped with the Aegis defensive system that could be adapted to include a missile defense capability. . . . A primary U.S. emphasis is on ensuring appropriate burden sharing. The Administration recognizes that allies do not view the specifics of the missile threat in the same way, and do not have equal resources to apply to this problem, but there is general recognition of a growing threat and the need to take steps now to address both existing threats and emerging ones.[21]

This effort to create a broad BMD enterprise builds on the current participa-
tion of allied navies in the Aegis program. This global effort started with a foreign
military sales relationship with Japan, subsequently expanded to relationships
with Australia and Korea, and now includes a commercial connection with Spain
as well as an enterprise between Norway and Spain.[22] Several other states have
expressed interest in acquiring the Aegis weapon system and Aegis BMD. Im-
portantly, Australia and other countries that are acquiring the Aegis system are
stipulating that the systems they buy must have the capability of adding BMD in
the future.

The Japan Maritime Self-Defense Force (JMSDF) was the first foreign navy to
construct Aegis warships. The JMSDF as of late 2011 operated four *Kongo*-class
destroyers; the lead ship of the class was commissioned in 1993. In 2000, the
JMSDF won approval for two improved units, known as the *Atago* class; the lead
ship of that class was commissioned in 2007.

Sharing, in light of an increasing regional threat, the U.S. interest in building
ballistic-missile defenses, Japan decided in 2003 to upgrade its *Kongo* class with
an Aegis BMD capability. U.S. foreign military sales upgraded all four ships ac-
cordingly, with SM-3 Block IA missiles. Japan subsequently decided to upgrade
its *Atago*-class ships with Aegis BMD as well. That upgrade allows the JMSDF
to meet the tenets of its New Defense Program Guidelines, which call for a total
of six Aegis BMD-equipped ships to defend the country from missile threats, in
conjunction with U.S. Navy warships.[23]

U.S.-Japanese cooperation extends also to the SM-3 missile. The United States
and Japan signed a memorandum of agreement in 1999 to cooperate in the
development of the SM-3 Block IIA, with Japan contributing both funding and
know-how. The Japanese technical contribution includes risk reduction in the
areas of the kinetic kill vehicle, second-stage propulsion, and the nose cone. The
success of the program led the U.S. Department of Defense to initiate talks aimed
at urging Japan to relax its decades-long arms embargo and export the SM-3
Block IIA to other countries, including U.S. European allies. In 2011, the Japanese
government gave its assent to export the SM-3 Block IIA.[24] This U.S./Japanese
cooperation on Aegis BMD writ large and SM-3 Block IIA development specifi-
cally, as well as trilaterally among Japan, South Korea, and the United States, is
increasingly evident in high-level Japanese publications, such as the 2011 *Defense
of Japan* white paper, as well as in various conference and symposia reports where
Japanese defense policy is discussed.[25]

Across the Sea of Japan, South Korea has announced plans to build six 5,600-
ton KDX-IIIA Aegis-equipped destroyers beginning in 2019 to complement the
three *Sejon-Daewan* KDX-III Aegis destroyers that was in service by 2012. More-
over, in 2011 South Korea declared that it was establishing a defensive system to

combat air-breathing (that is, generally, cruise missile, either ramjet or turbojet powered) and ballistic-missile threats from North Korea. Scheduled to be in place by 2015, the Korea Air and Missile Defense system will be built around the capabilities inherent in its Aegis-equipped destroyers and its modified PAC-3 ground-based interceptors.

The Aegis weapon system is becoming an antiair/BMD weapon of choice for other navies also. The Spanish navy in early 2012 operated four Aegis-equipped air-defense frigates of the *Alvaro de Bazan* (F100) class, with another under construction. Spain's interest in Aegis and its shipbuilding expertise have been "exported" to the Norwegian and Australian navies. In 2011, the Royal Norwegian Navy received the last of five frigates of the *Fridtjof Nansen* (F310) class—a somewhat austere but still capable version of the F100—built by Navantia shipyard in Ferrol, Spain. The Australian government likewise is partnering with Navantia to build three air-defense destroyers of the *Hobart* class at the ASC Shipbuilding facility in South Australia.

Following in the path established by the U.S. Navy, non-U.S. Aegis operators have been taking steps to exploit the system's BMD capabilities. The JMSDF has progressed farthest in this regard, closely integrating its activities with its American counterparts. The destroyer *Kirishima* was the first foreign warship to participate in a U.S. Aegis BMD flight test, in June 2006. Eighteen months later, during the JMSDF's first flight-test mission, *Kongo* became the first ship of an allied navy to engage successfully a ballistic-missile target. Between 2007 and 2010, four separate JMSDF ships launched SM-3 missiles at medium-range, separating-warhead targets.[26] Spain too has evaluated the possibilities presented by Aegis BMD. The Spanish navy's *Mendez Nunez* (F104), outfitted with BMD software, tracked a ballistic-missile target during a 2007 flight test.

The network framework of the Aegis enterprise enables other European navies, those that do not operate Aegis warships, to join a broader, Aegis-centered naval BMD architecture. The Netherlands navy's *Tromp,* a frigate fitted with a modified SMART-L surveillance radar and the Advanced Phased Array Radar (APAR), demonstrated this potential when it tracked a ballistic-missile target during a December 2006 Aegis BMD flight test. The German navy also operates three frigates fitted with SMART-L, APAR, and the Mark 41 VLS. Denmark is planning to build similarly equipped patrol frigates, suggesting another avenue by which BMD capability can migrate across NATO navies.

Aegis Ashore

The diffusion of Aegis capabilities globally was accelerated when the Barack Obama administration announced a new U.S. ballistic-missile defense policy in September 2009.[27] President Obama's decision upended the George W. Bush administration's plan to place missile-defense radar sites and ground-based

interceptors in Eastern Europe, opting instead for a "Phased Adaptive Approach" (PAA)—a global sea- and land-based missile-defense capability centered initially on the Navy's Aegis BMD system and the SM-3.[28] The decision to make this major shift in U.S. ballistic-missile policy—deferring the planned fixed-site ground-based system in Europe in favor of Aegis BMD afloat and ashore—was a direct response to the threat of short-to-intermediate-range Iranian ballistic missiles carrying WMD, slower than anticipated development of Iranian ICBMs, and a desire to engage Russia—which was vehemently opposed to GMD deployment in Eastern Europe—in BMD plans.[29]

At the November 2010 NATO Lisbon Summit, President Obama highlighted the importance of the Phased Adaptive Approach as well as the potential of Aegis BMD to undergird global partnerships:

> We must strengthen the full range of capabilities that are needed to protect our people and prepare for the missions of tomorrow. . . . Another necessary alliance capability is missile defense of NATO territory, which is needed to address the real and growing threat from ballistic missiles. The Phased Adaptive Approach to European missile defense that I announced last year will provide a strong and effective defense of the territory and people of Europe and our deployed American forces. Moreover, it forms the foundation of greater collaboration—with a role for all allies, protection for all allies, and an opportunity to cooperate with Russia, which is also threatened by ballistic missiles.[30]

The PAA comprises four phases. In Phase 1 (2011), existing sea-based Aegis missile-defense ships and radars have been deployed to defend against short- and medium-range ballistic missiles potentially threatening southern Europe. On 7 March 2011, USS *Monterey* (CG 61) left its home port of Norfolk, Virginia, for a six-month deployment to the Mediterranean as the first Aegis BMD ship to deploy specifically in support of the EPAA.[31] This historic deployment was widely reported in the national and international media.

In PAA phases 2 (2015), 3 (2018), and 4 (2020), the Aegis SM-3 missiles will be successively upgraded to provide coverage against medium- and intermediate-range missiles. By Phase 4, the Block IIB variant of the SM-3 should have an intercept capability against ICBMs as well.[32]

Momentum had been growing in Europe to build an alliance-wide missile-defense system compatible with Aegis BMD; Anders Fogh Rasmussen, NATO's secretary general, declared, "Missile defense presents the greatest potential for enhancing our cooperation."[33] The issue of collective ballistic-missile defense was a major theme during the Lisbon summit, which approved a plan for Aegis-enabled European BMD as a core element in NATO's new strategic concept: "NATO will actively seek cooperation on missile defense with Russia and other Euro-Atlantic partners."[34]

NATO's Supreme Allied Commander, Admiral James Stavridis, USN, noted that a plan to link the American PAA with a NATO missile-defense shield to provide a European theater-wide BMD shield is under development by U.S. European Command.[35] Well before the summit, NATO's Active Layered Theatre Ballistic Missile Defence program had conducted tests with the U.S. C2BMC system, with the ultimate, long-sought goal of international command-and-control interoperability. All twenty-eight NATO allies were already engaged in discussions as to how to connect the European members' short- and medium-range theater missile-defense systems via NATO to the U.S. long-range missile-defense system.

AN AEGIS BMD FOCUS FOR THE GLOBAL MARITIME PARTNERSHIP

By early 2012, Aegis was deployed on eighty-eight ships, with another eighteen under construction or planned. The vast majority of these belong to the U.S. Navy, but the number of non-U.S. Aegis platforms is growing as well. Additionally, more nations are buying or considering BMD capabilities for their Aegis-equipped ships.

The value of encouraging the increased adoption of Aegis-like capabilities—as well as interoperability with existing Aegis platforms afloat and ashore—is clear. Even the current, somewhat circumscribed, distribution of Aegis assets constitutes a foundation for a potential "sensor/shooter" mix for a global ballistic-missile defense enterprise. The shooter component can be shared, as well as the partners' agreed-on rules of engagement. For example, if the United States and Japan agree to form a defensive sensor shield over Japan and U.S. forces surrounding Japan against a North Korean missile launch, this shield can be accompanied by a missile-defense strike capability against the North's launch sites. The urgent need to deepen Japanese collaboration with the United States for missile defense in response to North Korea's testing of nuclear weapons has been recognized by both governments.[36] As South Korea proceeds along its current path, it too could well join the Aegis Afloat BMD partnership.

At the end of the day, sovereign interdependence and interoperability will remain core attributes of any Aegis global enterprise. The Aegis BMD system is already integrated and interoperable with other U.S. assets, and it will eventually be brought to the same standard with regard to coalition operations as well. Adoption of Aegis-type capabilities by allied militaries does not have to mean the exact replication of U.S. equipment and architecture, as demonstrated by South Korea's concentration on a national, vice regional, missile-defense plan. At the technical level, however, reliance of non-U.S. assets on American hardware and software in systems like Aegis goes a long way toward syncing allied capabilities and interoperability.

In Europe, the decision as to whether and how to connect the European NATO allies' short- and medium-range theater missile-defense systems to the U.S. long-range missile defense system will be critical to the coherence of alliance-wide BMD. A high level of commitment to international partnership on the parts of both the United States and its allies—already evinced by ALTBMD and C2BMC shared situational-awareness tests—will encourage interoperability initiatives. This interoperability will, in turn, help ensure the success of the U.S. Phased Adaptive Approach.

Ultimately, commitment to international partnership by the United States and its allies and friends to make Aegis BMD afloat a bulwark of global missile defense will do much to prepare all concerned for combating the growing threat of ballistic missiles of all colors and hues. It also offers the strong potential—more than anything else has in the years since Admiral Mullen's 2005 speech—to gird the Global Maritime Partnership for "high end" warfare. But this will not happen without leadership and stewardship at the highest level.

TOWARD EXTRAORDINARY REWARDS

Close cooperation in the area of Aegis BMD between the United States and Japan, possibly Korea, and potentially Australia does not in itself qualify as an "Aegis BMD Global Enterprise." But to include European nations in an Aegis-afloat enterprise of capabilities approaching those planned for the ALTBMD/EPAA system would. But why would European nations, with defense budgets dwarfed by that of the United States, embark on such an enterprise? The reason is clear: NATO and the European governments have interests often well beyond the territorial boundaries of the European continent.

European navies are now deployed worldwide fulfilling the vision of a Global Maritime Partnership: supporting operations in Iraq and Afghanistan, fighting in Libya, conducting antipiracy patrols in the Horn of Africa and elsewhere, and supporting humanitarian assistance operations around the world. There could be no more propitious time to begin to link more completely European allies in an Aegis BMD Global Enterprise, in much the same way the U.S. Navy is now linked to its Asia-Pacific partners in a high-end Aegis BMD Global Maritime Partnership. Such an enterprise would enable these nations—with U.S. participation—to deal with such compelling threats as China's DF-21D "ship killer" ballistic missile, especially if this missile is exported to China's friends. This creates an ideal opportunity to create a "high end" Global Maritime Partnership supported by Aegis BMD.

But it is unlikely that such a venture would succeed without ongoing U.S. leadership, the same sort of leadership that is supporting sea-based Aegis BMD for

territorial and fleet ballistic-missile defense today in the northeast Pacific as well as sea-based and land-based ballistic territorial missile defense in Europe. Clearly, U.S. leadership could be what accelerates the morphing of a now-nascent Aegis BMD Global Enterprise in Europe into a global Aegis BMD afloat capability.

"Leadership" often means "funding." In the face of the most draconian U.S. Defense Department budget cuts in a generation, plans for enhanced MDA or Navy funding to add to the Aegis BMD capabilities of partner nations will receive intense scrutiny. But given the manifest benefits to the nation and to a 280-ship U.S. Navy of supporting and sustaining a higher-end global maritime partnership than exists today, even a modest investment could well reap extraordinary rewards.

The U.S. Navy already does this in the area of command, control, communications, computers, and intelligence, providing the Combined Enterprise Regional Information Exchange System (CENTRIXS) to allied and coalition partners to facilitate their participation in various operations and exercises.[37] The United States could spearhead international Aegis BMD weapons burden sharing—creating a pool of SM-3 missiles for use by NATO navies when they deploy together out of theater.

There is a growing worldwide commitment to Aegis ballistic-missile defense, a commitment with broad potential to field an international global enterprise capable of defending against the most imminent, and growing, threat to nations and navies, on land and at sea alike—the threat of ballistic missiles, particularly those armed with weapons of mass destruction. The Aegis Global Enterprise is the key to girding the Global Maritime Partnership for the reality of "high-end warfare."

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28. U.S. Defense Dept., *Ballistic Missile Defense Review Report.* The Phased Adaptive Approach, initially implemented in Europe, will eventually be adopted within other regions, particularly the Middle East and East Asia.

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LEARNING FROM LEBANON

Airpower and Strategy in Israel's 2006 War against Hezbollah

Benjamin S. Lambeth

From 12 July until 15 August 2006, the Israel Defense Forces (IDF) waged a thirty-four-day war against the Iranian terrorist proxy organization Hezbollah in response to a well-planned raid by a team of Hezbollah combatants from southern Lebanon into northern Israel. That raid resulted in the abduction of two IDF soldiers, who had then been taken back into Lebanon for use as hostages.[1] Code-named Operation CHANGE OF DIRECTION, the greatly escalated counteroffensive that the raid prompted has since been widely regarded as the IDF's most inconclusive combat performance in Israel's history. Waged under the direction of Prime Minister Ehud Olmert and his minister of defense at the time, Amir Peretz, the campaign was dominated by precision standoff attacks by the Israel Air Force (IAF) and by IDF artillery and battlefield rockets, with no significant commitment of conventional ground troops until the last days of fighting before a cease-fire went into effect.

What mostly accounted for the frustration felt throughout Israel as the conflict unfolded was the fact that at no time during the thirty-four days of combat were IDF forces able to stem the relentless daily barrage of short-range Katyusha rockets that Hezbollah fired into civilian population centers in northern Israel until the cease-fire finally ended that deadly harassment.[2] Beyond that, the war's achievements fell well short of what Prime Minister Olmert had promised the Israeli people at the campaign's start, namely, an unconditional return of the two abducted soldiers and a decisive crushing of Hezbollah as an effective military presence in southern Lebanon. The IDF's lackluster performance severely undermined the long-standing image of Israel's invincibility in the eyes of the Arab world and the West. It also reflected manifold failures in strategy choice at the highest levels of the Israeli government, both uniformed and civilian.

The IDF's chief of staff at the time, Lieutenant General Dan Halutz, had previously served as commander of the IAF and was the first airman ever to have occupied the country's top military position. Because his initial response to Hezbollah's provocation was to rely almost exclusively on precision standoff attacks for their hoped-for coercive effects rather than opt for a concurrent large-scale commitment of IDF troops on the ground, the campaign's less than decisive outcome led many to conclude afterward that because he was an airman he had succumbed to a natural belief that airpower alone would suffice.

Furthermore, in a widespread early inference that persists to this day, many also adjudged that because of Halutz's initial choice of a strategy that forwent any significant use of ground forces, the IDF's eventual disappointing performance attested, at bottom, to a "failure of airpower." That premature and baseless inference ignored the important fact that from its initial moments onward the IDF's counteroffensive entailed not only around-the-clock strikes by IAF fighters and attack helicopters but also thousands of daily rounds of ground-force artillery and rockets fired into southern Lebanon against enemy targets, as well as covert hit-and-run raids into Hezbollah-infested territory by teams of Israeli special operations forces (SOF). Nevertheless, as a British Royal Air Force officer writing almost a year after the fighting ended observed, in commenting on the range of public impressions of the campaign experience to date, the idea that the IDF's flawed performance reflected a simple "failure of airpower" rather than an accumulation of larger sins of omission and commission by the Israeli civilian and military leadership "appeared at the time to be the most general understanding of this particular campaign within the more thoughtful elements of the media."[3]

All the same, a duly informed understanding of the campaign's essence must recognize that the Olmert government's chosen initial move for responding to Hezbollah's provocation was never simplistically an air-only gambit but rather a resort to standoff attacks that also included heavy use of IDF ground-force artillery and rockets. In this situation not just Halutz but also his civilian superiors and the IDF's leading ground commanders were not ready, at least at the outset, to commit to a major land push into southern Lebanon, owing to the high troop casualties that any such resort would inevitably produce. Without question, major errors in situation assessment and strategy choice were made by the topmost Israeli leadership, errors that were directly responsible for the campaign's less than satisfactory outcome. Yet if anything "failed" in this accumulation of poor leadership judgment calls, it was not Israeli airpower or any other instrument of warfare per se but rather a blend of ill-founded military and civilian decisions at the highest level with respect to the nature and aims of Israel's opponent; initially avowed goals that were unachievable through *any* mix of military force that the Israeli people and the international community would likely countenance; the

ultimate choice of a strategy for pursuing the campaign's objectives; and the government's mismanagement of public expectations as the counteroffensive unfolded.

THE HIGHLIGHTS OF IDF COMBAT OPERATIONS

The casus belli for Israel's second Lebanon war came at 9:05 on the morning of 12 July 2006, when a well-practiced team of Hezbollah terrorists crossed the border at an unmonitored point and ambushed an IDF patrol during a fleeting vulnerable moment, killing three soldiers, capturing two more, and taking the latter back into Lebanon. Once the IDF's Northern Command became aware that one of its patrols had failed to check in, it immediately declared a HANNIBAL incident (for a suspected troop abduction) and dispatched another detachment equipped with a Merkava tank to search for the missing soldiers. Immediately after that unit crossed into southern Lebanon in pursuit of the abductors, it got suckered into a trap, resulting in the Merkava's being blown up by a mine and four more soldiers being killed. The event was observed by an IAF unmanned aerial vehicle (UAV) orbiting overhead, and streaming electro-optical and infrared imagery of the explosion was transmitted in real time to monitors in IDF command posts and operations centers throughout Israel.

The first IAF contribution to the gathering campaign was a two-plane element of attack helicopters that had been launched to investigate the successive incidents. As soon as he learned of the abduction, Minister of Defense Peretz authorized the immediate execution of two preplanned response options—attacking all of Hezbollah's positions along the Lebanese border with Israel and closing off likely escape routes deeper inside Lebanon with quick-reaction air attacks. A little more than an hour later, the first wave of IAF strike fighters crossed into Lebanon. In this initial attack wave, F-16s destroyed all of Hezbollah's observation posts along the border and dropped the first of numerous bridges across the Litani River farther north. Concurrently, units of the IDF's 91st Division initiated massive artillery fire against Hezbollah targets in southern Lebanon.

Shortly after noon that first day, Prime Minister Olmert convened a press conference and declared both emphatically and without any foundation in fact, "The events of this morning cannot be considered a terrorist strike; they are acts of a sovereign state that has attacked Israel without cause." He further announced that his government would assemble that evening to decide on a more definitive course of action and that the IDF's response would be "thundering."[4]

Further compounding that initial misstep, Olmert announced to Israel's parliament five days later, in a speech that showed no sign of any serious prior strategy deliberation, four objectives of his government's intended response—an unconditional return of the two kidnapped soldiers by Hezbollah, the establishment

of a "new situation" along the Israeli-Lebanese border, enhanced IDF deterrence against outside threats, and the disarming and removal of all Hezbollah forces in southern Lebanon.[5] The first of these avowed goals was excessive to a fault, since all Hezbollah's leader, the fiery terrorist Hassan Nasrallah, would need to do to be able to claim "victory" would be to refuse to return the abducted soldiers, thereby depriving Olmert of the ability to make good on his promise to the Israeli people. More important, it also was counter to Halutz's more realistic determination that any notion of seeking a return of the abducted soldiers should be rejected forthwith as unattainable—which instantly raises a most basic question as to why Halutz accepted it without challenge.[6]

Olmert's second avowed goal was equally a reach, but at least it was achievable in principle, were a bold strategy to be followed. The third raised the obvious question of how. The fourth declared goal was as extravagant as the first. Although likewise achievable in principle, it could only be attained at a cost far greater than the Israeli people would most likely have been willing to pay in terms of IDF casualties incurred and a renewed Israeli presence in southern Lebanon with no end in sight.

As the first day of IDF strike operations neared an end, it became increasingly clear that the government's preferred approach, at least for the time being, would be to rely exclusively on standoff attacks by IAF fighters and attack helicopters, supplemented as appropriate by IDF artillery and M270 Multiple-Launch Rocket System (MLRS) fire against known Hezbollah positions south of the Litani, rather than resorting to any early insertion of troops on the ground. Several months before, in planning for a possible showdown—of just the sort that was now unfolding—against Hezbollah, the IDF's operations directorate had developed two fairly elaborate contingency-response options. The first, code-named ICEBREAKER (*Shoveret Ha'kerach* in Hebrew), called for a precision standoff-attack operation lasting from forty-eight to seventy-two hours, along with concurrent preparations for a possible limited land counteroffensive to follow promptly thereafter. The second, labeled SUPERNAL WATERS *(Mei Marom),* likewise envisaged several days of standoff-only preparation, a concurrent call-up of reserve forces for possible imminent commitment, and either a halt to standoff fires alone after forty-eight to seventy-two hours or a determined escalation to combined air-land operations aimed at decisively pushing Hezbollah's forces in southern Lebanon north of the Litani River.[7]

As the crisis gathered, Halutz, determined to avoid any return to what Israelis had come to call "the Lebanese mud" (after the IDF's forgettable eighteen-year presence in that country), opted not to implement either of these two preplanned options. He chose instead to pursue a standoff-only counteroffensive, at least for the moment, out of a desire to forgo needless risk of early troop fatalities, should

standoff attacks alone be enough to coerce the desired response on Nasrallah's part. In this considered choice, he gained the ready assent of both Olmert and Peretz, who likewise feared implicitly that Israel's rank and file would be unwilling to abide the large number of IDF casualties that the alternatives would almost surely produce. Accordingly, Halutz issued the order for previously tasked IAF fighter squadrons to begin preparing to execute, later that night, a carefully planned preemptive strike, code-named Operation MISHKAL SGULI (Specific Weight), against Hezbollah's known and targetable medium-range-rocket storage sites.

Although its success was not publicized at the time by the Olmert government, the IAF operation was conducted without a hitch during the early morning hours of 13 July. In the course of a thirty-four-minute offensive involving forty F-15I and F-16I fighters equipped with imaging infrared targeting pods, only some twenty Lebanese civilians (most likely Hezbollah supporters who happened to be occupying the targeted structures) were assessed by IDF intelligence afterward as having been killed. A senior IAF intelligence officer later characterized the performance as "a case study in operational perfection."[8]

The sudden and unexpected combination of Operation MISHKAL SGULI and a determined IAF strike soon thereafter on Hezbollah's Al Manar television station provoked, by way of an escalated enemy response, what two Israeli journalists termed "Hezbollah's rocket war."[9] That sustained reprisal exposed, for the first time ever, the full extent of the vulnerability of Israel's home front to often deadly, if militarily ineffective, Katyusha fire from southern Lebanon. In addition to its continual barrage of short-range Katyushas, Hezbollah also, for the first time, fired a volley of medium-range rockets into northern Israel, several landing near the town of Afula, thirty miles south of the Lebanese border. One such rocket landed in the suburbs of Haifa during the afternoon of 13 July. That was the deepest that Hezbollah had ever struck into Israel.[10] The attack had the almost instant effect of shutting down Israel's third-largest city and sending thousands of its residents down the southbound highways to escape.

In response to these escalated acts of enemy aggression, the Olmert government raised its own ante in turn by attacking the heart of Hezbollah's command and control complex in the *dahiye* section of south Beirut. Its air strikes into the *dahiye* began during the early evening of 14 July. All civilians were assessed as having previously evacuated the area after the IDF gave a twenty-four-hour advance warning of its intent to attack. In the initial wave, some fifteen headquarters buildings were destroyed by two-thousand-pound, satellite-aided GBU-31 Joint Direct Attack Munitions (JDAMs) delivered by F-15Is.[11] A second target complex, consisting of Nasrallah's personal headquarters and residence, sustained forty JDAM hits within a minute. A senior Israeli official later confirmed

that Nasrallah himself had been targeted in that attack.[12] The military benefits of the attack were negligible; Nasrallah and other top Hezbollah leaders were most likely in an underground bunker that could not be breached by the munitions employed. Nevertheless, the IDF had deemed the *dahiye* complex to be so important, as the most visible symbol of Hezbollah's presence in Lebanon, that it had had no choice but to go after it with all determination.

Shortly thereafter, Hezbollah upped the ante yet again by targeting the Israeli naval vessel *Hanit* (Spear), a Saar-5 corvette built in 1994 and carrying some eighty crew members, which was patrolling in Lebanese waters eight miles west of Beirut. The attack was conducted by what soon proved to have been an Iranian-made variant of the Chinese-developed C-802 antishipping missile, a weapon that IDF intelligence had not even known was in Hezbollah's possession. The missile struck the stern of *Hanit* at 8:42 PM, killing four crew members and causing considerable damage. A second missile, targeted against another Israeli ship, overflew *Hanit* and, apparently inadvertently, struck and sank a foreign merchant vessel cruising thirty-five miles off the Lebanese coast. *Hanit,* disabled by the C-802 but still afloat, got out of the line of fire and eventually made its way back to Ashdod for repairs under its own power. It was later determined that the antimissile radar on board *Hanit* had been out of service the evening of the attack, that the watch officer in charge of the ship's defensive electronic systems had turned some of those systems off without informing the captain, and that the Israeli naval leadership had never directed its crews at sea to bring their antimissile capabilities to alert status—even after the campaign was under way. At bottom, *Hanit*'s crew had not activated its defenses against the possibility of a cruise-missile attack because IDF intelligence had not identified such a threat.[13] As a result, the ship was defenseless when it was attacked.

IDF intelligence officials strongly suspected that a team of skilled Iranian technical experts had either fired or supervised the firing of the C-802 against *Hanit.* Soon after, the head of the IDF's operations directorate, Major General Gadi Eisenkott, disclosed that the enemy combatants who fired the C-802 had received targeting information from Lebanese naval radar stations in Beirut and elsewhere. Those facilities were accordingly struck by IAF attack helicopters.[14] The head of the IDF's planning directorate, then–Brigadier General Ido Nehushtan of the IAF, subsequently reported that the air attacks on Lebanon's port areas had been aimed expressly at eliminating the radar installations said to have supported Hezbollah's attack on *Hanit.* He added, "We see this [C-802] attack as a very clear fingerprint of Iranian involvement." Nehushtan characterized the struck radar facilities as emerging targets of opportunity: "Sometimes new targets come up, like the sea radar, that we will go after."[15] In all, ten Lebanese radar stations along the coast were struck on 15 July and were either destroyed or disabled. The IDF

concurrently imposed a naval blockade along Lebanon's coast, closing the main channel to both incoming and departing traffic.

During the first seven days of fighting, the IAF flew some two thousand fighter and attack-helicopter sorties, engaging around 650 targets with more than a thousand munitions.[16] Yet by the end of that first week it was becoming increasingly apparent that standoff attacks alone would never bring about the Olmert government's declared objectives. All the same, despite that gathering recognition, Israel's ground commanders were making it unambiguously clear that they had no appetite whatever for a reprise of the massive land invasion that Israel had launched into Lebanon in 1982. A former chief of staff, retired lieutenant general Amnon Lipkin-Shahak of the ground forces, frankly acknowledged the IDF's deep reluctance to commit a large number of troops to close combat with Hezbollah, owing to the all but certain prospect of heavy losses.[17]

On 20 July, however, in its largest troop activation in four years, the IDF began mobilizing three reserve divisions and concurrently broadcast warnings for all civilians residing in southern Lebanon to evacuate to safer environs north of the Litani. Taken together, those two steps foreshadowed a major Israeli ground push sooner or later. As the move to significant ground operations drew nearer, a debate arose within Israel's defense community over whether limited forays with SOF teams would suffice or whether the IDF should now commit larger numbers of heavy infantry and armored forces. One serving general predicted that the IDF would continue to rely mainly on air operations for the time being, out of a hope that the United States and the international community would not press Israel for an early curtailment of the fighting: "We have no . . . desire to go back in force into Lebanon. But if I'm wrong and there's not enough time and if airpower proves ineffective, then we'll do it."[18]

With the continuing daily onslaught of short-range rocket fire into northern Israel, ever more vocal calls began to be heard for a massive ground incursion aimed at driving Hezbollah's forces out of southern Lebanon once and for all. The Olmert government, however, continued to opt for the existing, lower-key ground operations, out of a clear realization that a major land offensive would yield no instant solution to the Katyusha problem. Yet on 26 July, as a reluctant but determined IDF ground push drew closer, General Nehushtan, the head of the IDF's planning directorate and an IAF fighter pilot, told Halutz, "Without a major ground campaign, the IDF [cannot] stop the Katyusha rockets. You must bring this before the government. You need to tell them straight that without a major ground operation, we cannot remove the Katyusha threat. If the government does not approve it . . . we should tell them that they must stop the campaign now." The same day, the IDF's deputy chief, Major General Moshe Kaplinsky, likewise went to Halutz: "We can't go on like this. You must demand a

ground offensive at tomorrow's cabinet meeting."[19] This time Halutz agreed that both were right.

The next day, Olmert's inner council approved a formal call-up of the now-mobilizing IDF reservists (some thirty thousand in all), while still ruling out for the time being a major escalation on the ground. Only on 1 August, after another week of resisting a ground offensive, did the IDF's leaders finally bow to the inevitable and begin preparing for a major incursion into southern Lebanon. This halting embrace of a major ground assault as the campaign continued to drag on was an all but explicit testament to the dawning realization among Israel's top leaders that standoff attacks alone had failed to bring about the government's avowed goals. It also highlighted their gradual understanding that the continuing rocket attacks constituted a centerpiece of Hezbollah's strategic concept of operations.

The 9 August meeting of Olmert's cabinet, which the next day yielded the decision to commit IDF troops to major combat, was the most momentous leadership gathering of the thirty-four-day confrontation. By then, the IDF had accepted the inevitability of a large-scale ground push if the government's eventually expressed determination to reduce the rate of enemy rocket fire into northern Israel was to be honored. To be sure, there remained a deep-seated reluctance at all levels to follow through, but the IDF's leaders saw no other alternative at that point. With the benefit of hindsight, had such an alternative been adopted by the IDF from the campaign's start, it might well have produced a more decisive outcome for Israel. However, it came instead only at the last possible moment, just days before a cease-fire brokered by the United Nations was to go into effect.

The formal order for forward-deployed Israeli troops to move in force into southern Lebanon reached IDF Northern Command's headquarters at five o'clock in the afternoon of 11 August. Two days later, aerial preparation by the IAF and insertions of heli-borne Israeli troops into southern Lebanon sought to extend the IDF's ground presence all the way to the Litani. Not surprisingly, the IDF suffered its highest casualty rate during those last three days of peak-intensity fighting. On 15 August the cease-fire previously agreed to by both sides went into effect. At that, civilians in northern Israel at long last emerged from their bomb shelters, and Nasrallah, fully mindful of the crucial importance of the war of narratives, artfully claimed to have achieved a "strategic and historic victory."[20]

In the war's eventual tally sheet, the IDF's ground contribution entailed some thirty thousand troops operating in southern Lebanon. As for friendly losses, the final report of the Winograd Commission (so named for its chair, Eliyahu Winograd, a retired judge) convened by Olmert to assess his government's performance in the campaign cited 119 IDF troops (half reservists) killed in action, 628 wounded, and 45 Israeli civilians killed by rocket attacks. Hezbollah claimed a mere eighty-one of its fighters killed in action, though the IDF insisted that

the true number was substantially higher. Official IDF figures later stated that Hezbollah, in fact, lost around six hundred trained combatants—more than a tenth of the organization's estimated total personnel strength.[21] For its part, the IAF flew nearly nineteen thousand sorties throughout the thirty-four-day campaign.

Yet as effective as the IAF's combat performance was in a narrow sense, the Olmert government's originally stated goals of recovering the two abducted soldiers and extirpating Hezbollah as a viable fighting force in southern Lebanon were not achieved. During the war's last twenty-four hours Hezbollah fired an all-time high of 250 Katyushas into northern Israel, offering a ringing testimony to its tenacity and to the IDF's inability to reduce the rate of short-range rocket fire to any significant degree at any time throughout the campaign.

ACCOMPLISHMENTS AND PROBLEMS ENCOUNTERED

For the most part, in mission areas in which it naturally excelled the IAF performed to its usual high standards of competence. Indeed, the service exceeded the government's expectations in many respects. Any shortfalls in its effectiveness were due mainly to an absence of adequate actionable intelligence on such vital targets as hidden stockpiles of Katyushas. Bearing credible witness to this performance, the Winograd Commission's final report, issued in January 2008, concluded that the IAF had displayed "exceptional capabilities" and had turned in some "impressive achievements" throughout the course of the counteroffensive. That document further noted that the scope of IAF operations had been "unprecedented" and that the service had "executed most of its preplanned assignments well." It added that the service's performance in some cases "helped to compensate for the severity of the ground force's failure [in key respects]."[22]

To be sure, the airspace over Lebanon presented a relatively benign operating environment for the IAF. There were no air-to-air threats or significant enemy surface defenses to contend with, aside from sporadic fire from infrared surface-to-air missiles and antiaircraft artillery. In all, out of its total of nearly nineteen thousand combat and combat support sorties flown the IAF experienced just one aircraft loss as a direct result of enemy fire (a CH-53 helicopter during a night troop insertion operation during the campaign's last days) and three more due to accidents. As that record well attested, IAF aircrews were essentially able to operate with impunity throughout Lebanon's airspace, enjoying both freedom from attack and freedom to attack. The IAF's most notable combat achievements were its unprecedented level of sustained combat-sortie generation, its first-ever preemptive attack against an enemy ballistic missile inventory, its skillful integration of UAVs into both independent air operations and joint air-ground combat, and its courageous combat airlift and search and rescue operations under often intense enemy fire.[23]

More than in any previous combat involvement by the IAF, precision strike operations played a prominent role in Operation CHANGE OF DIRECTION. Precision-guided munitions (PGMs) made up 36 percent of the total number of air-delivered weapons expended. For targets in built-up areas, where the avoidance of collateral damage was a major concern, the use of PGMs of various sorts was more on the order of 60 percent. In one instance, a series of attacks against Hezbollah's command and control complex in the *dahiye* sector of south Beirut, *all* of the weapons expended were PGMs of one sort or another.

Yet alongside these achievements, the IAF also experienced its share of difficulties throughout the course of the second Lebanon war. Two problem areas in particular—Hezbollah's short-range rockets, which were dispersed across southern Lebanon, and unsuccessful attempts to eliminate the terrorist organization's most senior leaders—were occasioned by an absence of adequate real-time intelligence regarding the location of those high-value assets. Two other areas in which the IAF was fairly faulted both during and after the war—the extent of Lebanese noncombatant casualties inflicted by bombing and the associated damage done to Lebanon's civilian infrastructure and economy—were the results of ill-advised targeting choices handed down by the Olmert government. Finally, in the realm of air-land integration once ground combat got under way in earnest, both the IAF and the IDF's ground forces later acknowledged multiple breakdowns in their efforts at coordinated joint-force employment resulting from their not having routinely conducted serious large-force training exercises throughout the preceding six years. During those years, the IDF had been almost exclusively fixated on the more immediate and pressing lower-intensity problem of dealing with the Palestinian *intifada* in the occupied territories.

With respect to the intractable Katyusha challenge, Hezbollah fired some 720 of those short-range rockets into northern Israel during the war's first week alone. Six days of relentless IAF retaliatory attacks on the terrorist organization's key military and infrastructure assets throughout Lebanon did nothing whatever to dissuade Nasrallah from continuing this rocket war against Israel. Nor did the IAF's attacks reduce to any significant degree Hezbollah's ability to keep firing Katyushas into Israel virtually at will. By the beginning of the campaign's third week, a steady rain of incoming rockets, an average of 170 or more a day, had driven more than a million residents of northern Israel either into bomb shelters or to safer haven farther south. This unrelenting onslaught finally drove home a clear awareness among Israel's security principals that the short-range rocket challenge presented by Hezbollah was a core strategic threat to Israel's civilian population.

The heart of the IDF's predicament lay in the fact that the Katyushas were essentially untargetable for standoff attacks. Concentrated within a six-mile-deep

strip along Israel's northern border with Lebanon, the rockets were typically hidden in nondescript buildings and storerooms attached to private homes. It was all but impossible for fighter aircrews looking through their targeting pods from altitudes of twenty thousand feet or higher to distinguish a launcher being readied for firing from its surroundings, thanks to Hezbollah's accomplished techniques of dispersal, concealment, and collocation of its launchers with civilian structures. In addition, enemy rocket squads purposely embedded themselves among innocent civilians, whom they used without compunction as human shields, posing for the IAF the constant danger of inadvertent noncombatant casualties.

General Halutz later recalled the persistence of daily harassment by Hezbollah's Katyushas as a "major source of frustration" for the Olmert government.[24] Yet the IDF's own failure to undertake any concerted effort to negate the short-range rocket threat, or even to take it seriously until the campaign's last week, was the main reason for the counteroffensive's indecisive conclusion and the associated perception that Hezbollah's survival to fight another day represented an IDF failure. From a purely tactical perspective, of course, Hezbollah's Katyushas, even at worst, were like mosquitoes—annoying in the extreme but of no real military consequence. Yet Hezbollah's rockets were comparable in effect to Iraq's Scuds fired into Israel in 1991 in terms of their political and strategic utility—a factor that the IDF's leadership never fully recognized or duly acted on. The problem was not so much the actual physical destruction, injuries, and fatalities caused by the Katyushas as the intolerable spectacle of large numbers of Israeli citizens hunkered down in shelters for days on end as a result of that unending threat. Ultimately, to negate the Katyushas in a timely way the IDF would have had to go in on the ground in large numbers at least to the Litani River. The Olmert government's determination to avoid high troop casualties at all costs drove the IDF to rely instead largely on standoff attack operations rather than undertake such a costly land offensive.

Not long after the cease-fire went into effect, many were quick to fault the IAF for having failed to negate the Katyusha threat. That charge, however, was without merit. No one in the IAF had ever suggested that such negation was something that Israel's air assets could effectively attempt, let alone ensure. On the contrary, the IAF's leaders freely espoused the opposite view, and their clear stance in that respect was well known by the government long before CHANGE OF DIRECTION was initiated. Just a month before the crisis broke, the IDF had rehearsed its plan for exactly such a situation in a command-post exercise that began with an abduction incident much like the one that eventually occurred on 12 July. At the time, the IAF's commander, Major General Eliezer Shkedy, made it clear that the IAF could not prevent Hezbollah from launching short-range rockets at will, that the IAF's success rate against Katyusha stocks would be only

around 3 percent at best, and that effective neutralization of these hidden rockets would require determined IDF ground operations.[25] An important lesson driven home by this experience for the IDF was the absolute need, from the very start of any future crisis of a comparable nature, to be more forceful in controlling the expectations of both the civilian leadership and the Israeli rank and file regarding what airpower could and could not be expected to deliver.[26]

THE SECOND LEBANON WAR IN STRATEGIC PERSPECTIVE

As the foregoing discussion has shown in enough detail to make the point, the inconclusive result of Israel's 2006 war against Hezbollah in no way reflected a "failure of airpower," a gross mischaracterization of the Olmert government's flawed approach that unfortunately remains the predominant view among many to this day. The initial belief that the many frustrations experienced by Israelis during the second Lebanon war all emanated simply from the parochial pursuit of an air-only strategy by the fighter pilot who happened to be serving at the time as the IDF's chief has remained remarkably persistent over time despite overwhelming evidence to the contrary.[27]

In fact, the IDF's combat doctrine that prevailed on the eve of the second Lebanon war was in no way air-centric beyond the bounds of reason in the context of the many challenges that Israel faces across the conflict spectrum. Although a career fighter pilot by background who naturally believed in the transformed character of contemporary air warfare capabilities, General Halutz had repeatedly voiced balanced views on the evolved role of airpower in joint warfare. He freely admitted his long-standing recognition that an air arm by itself, whatever its combat advantages, "cannot stick the flag on a hilltop."[28]

More important, the doctrinal elevation of precision standoff attack over close-quarters ground maneuver as the IDF's preferred approach to modern warfare was not, as many have suggested, a forced concoction by Halutz derived from his natural prejudices in favor of airpower. On the contrary, that reorientation had been first instituted several years before the second Lebanon war by the IDF's then–chief of staff, Ehud Barak, a ground-forces general. Barak had determined that in light of recent technology improvements and the accumulation of American aerial-warfare successes since Operation DESERT STORM, the primary focus of IDF options planning for major contingencies should be, as one Israeli scholar put it, "on fire and not on maneuver, on neutralizing the enemy and not on decisively defeating it via conquest of territory."[29]

Finally, Halutz had scarcely been left unprepared by his upbringing as an airman to serve in the position of IDF chief of staff. After the disappointing conclusion of Israel's second Lebanon war, some retired IDF ground force critics complained that he had spent his entire service life in an antiseptic airman's

world totally removed from the gritty realities of "boots on the ground." Yet the fact is that on entering the general-officer ranks Halutz gained exposure to ground-force issues to a degree uncommon for an airman, thanks to a succession of senior seasoning assignments in Israel's joint arena. Starting in 1998, he served a two-year tour as head of the IDF's operations directorate. In 2004, after his subsequent four-year stint as IAF commander beginning in 2000, he moved up to become the IDF's deputy chief of staff before being picked in 2005 by then–Prime Minister Ariel Sharon as the first IAF general to be trusted with the nation's top military leadership position. Halutz testified to the Winograd Commission that on assuming the position of chief of staff he had felt that he was entering office with "a large measure of familiarity with the essence of ground operations." He added that when Barak, by then minister of defense, had appointed him commander of the IAF in 2000, Barak had commented that Halutz was already "the greenest blue helmet in the IDF."[30]

True enough, on the surface, and to many unversed in the details of ongoing combat operations at the time, the first two weeks of Operation CHANGE OF DIRECTION indeed bore ample signs of being an air-only effort. We now know, however, with the benefit of subsequent revelations regarding the Olmert government's inner deliberations as the campaign unfolded, that Halutz never insisted on such an approach based on a belief that it offered the most promising solution to mission needs. On the contrary, after the campaign ended he declared categorically in response to charges that he had wrongly sought to achieve the government's goals with an air-only strategy, "I never said an aerial campaign would suffice [for the IDF] to prevail. The original plan was to combine an aerial campaign with a [possible eventual] ground maneuver."[31]

Halutz also stressed repeatedly that he had never used the term "airpower" in characterizing his counteroffensive plan. Rather, what he had sought to employ to useful effect was standoff *firepower*. The IDF's response to Hezbollah's provocation of 12 July, Halutz rightly emphasized, was neither initiated as, nor ever envisaged as being, an air-only campaign. In clear testimony to that fact, IDF operations from the campaign's first day until the cease-fire went into effect also included the firing of some 173,000 artillery shells and MLRS rounds, more than were expended during the much more intense Yom Kippur War of 1973.[32]

If the flaws in the IDF's performance during its second Lebanon war did not emanate from misplaced reliance on the assumed promise of airpower, then wherein lies their explanation? The main reason behind the Olmert government's initial strategy for responding to Hezbollah's provocation was simply that no one among the senior Israeli leadership, military or civilian, wanted an open-ended ground war. It was not as if, as one American commentator later put it, General Halutz was somehow "guilty of 'preventing' the ground forces from otherwise

carrying out *their* preferred and *the* optimum plan."[33] The IDF's ground commanders were equally opposed to a major land push for numerous reasons, not least of which was the fact that Israel's ground forces were unprepared for major combat against a robust opponent like Hezbollah, having conducted only domestic policing actions against the Palestinian resistance during the preceding six years.

Yet at the same time, Halutz wanted to teach Hezbollah a lesson that its leaders would not soon forget. Ever since the IDF's withdrawal from southern Lebanon in 2000, Nasrallah's combatants had systematically taken up positions vacated by the departing Israeli forces. The preeminent challenge for the IDF in that situation, it naturally followed, was to contain Hezbollah's looming military presence, notwithstanding the many tactical advantages that the terrorist organization accrued from its new perches just across the Lebanese border.

During his previous assignment as the IAF's commander, Halutz had maintained that the Barak government's policy of answering with restraint Hezbollah's continued tests of the limits of Israel's tolerance—unprovoked border incidents and random rocket firings into northern Israel—was prejudicial to the nation's security interests. He later demanded, in an order to the IDF's operations directorate in May 2006, a concrete contingency plan against Hezbollah.[34] With the final provocation of the abduction on 12 July 2006, Halutz decided that the time had come to engineer a sea change, to implement a fundamentally different approach —hence his decision to code-name the IDF's counteroffensive Operation CHANGE OF DIRECTION.

In any case, the decision to begin the campaign with standoff-only attacks was not Halutz's alone. It was the consensus view among Israel's top civilian and military leaders, because it appeared to be the country's best available option as an initial response. As Lieutenant General Shaul Mofaz, a land combatant, former IDF chief of staff, and serving member of Olmert's cabinet, later explained in his testimony to the Winograd Commission, "If you can do it from the air, it is better. I do not believe any of us would want to use ground forces if you can attain [your objectives] otherwise."[35]

Another reason for initiating the counteroffensive with standoff-only attacks was the leadership's keen appreciation that, as noted above, Israel's ground forces were not ready for major combat. As one IDF unit commander later recalled in this regard, "Our main problem was that everyone in the army knew what had to be done, and [yet] no one wanted to do it, especially since we knew that it would cost us a lot of casualties."[36] During the government's initial deliberations over such a daunting strategy alternative, the IDF's deputy chief, General Kaplinsky, and other land force generals warned Olmert that a major ground invasion could cost the IDF as many as four hundred soldiers killed in action.[37]

In his memoirs published in 2010, Halutz reminded readers of the more modest goals that he had issued to the IAF and to Northern Command: "The IDF embarked on the Lebanon II war with predefined aims. These aims were limited. Not one of them defined the war as aiming to destroy, crush, or wipe out the Hezbollah organization from the map of Lebanese reality."[38] Yet the inescapable fact remains that the former IDF chief's prime minister had avowed precisely such a goal, to all intents and purposes, in a public pronouncement six days into the campaign. That declaration by the nation's top leader gave instant rise to unrealistic expectations on the part of the Israeli public, expectations that the IDF lacked the wherewithal to fulfill with any combination of air and ground forces that domestic and international opinion would likely countenance. Worse yet, it played perfectly into Nasrallah's hands by allowing him to claim at the campaign's end, with complete credibility in the eyes of the Arab world and of most Western observers, that Hezbollah had emerged "victorious" from the IDF's counteroffensive simply by having survived.

On this point, important for a proper understanding of where the IDF's campaign plan ultimately went wrong, Halutz remarked in passing and all but dismissively in his memoirs that "among the public and also at the political level, there were unrealistically high expectations that were built, among other things, by flawed public relations."[39] Yet as correct as that statement was, strictly speaking and as far as it went, it was exactly that palpable disconnect that in the end proved most consequential. The disconnect between what the prime minister had promised the Israeli people during the campaign's first week and what the IDF had set about more modestly to accomplish on the battlefield yielded an outcome that gave both self-interested and neutral onlookers alike every reason to conclude that the IDF's counteroffensive had ended in "failure."

In fact, Prime Minister Olmert, seemingly on impulse, promised considerably more during the campaign's first week than all of Israel's forces together could possibly have delivered at a price that anyone in the country would have been willing to pay. For his part, General Halutz evidently failed to preempt that egregious overreach by making it unambiguously clear to his political superior beforehand what the IDF could and could not do. As a result, he and Olmert marched to different drummers throughout the campaign, a fact that was largely responsible for the mounting sense among the Israeli people and most outside observers as the endgame neared that Israel had failed to achieve its avowed goals. Nasrallah lost no time in leveraging the point for maximum propaganda value by claiming a "divine victory" for Hezbollah as the cease-fire went into effect.[40]

In the end, informed observers can reasonably disagree in hindsight about the appropriateness of Halutz's standoff-only initial move for Operation CHANGE OF DIRECTION. That choice, it bears repeating, was shared at first not only by the

Olmert government's top civilian leaders but also by the IDF's leading ground-force commanders. Yet it is all but impossible to avoid concluding that for whatever reason, Halutz failed to prevent his prime minister from writing a check that the IDF could not cash—that is, from articulating unattainable goals on the campaign's sixth day and thereafter allowing them to persist in the minds of Israeli citizens and outside observers. That lapse had profound adverse consequences for how the campaign has been viewed ever since, however more tolerably, and even positively, that matters may ultimately have turned out for Israel—a point to which we will return.

There was nothing wrong in principle with the Olmert government's decision to respond to Hezbollah's provocation with escalated force. Yet its chosen response was apparently not explored in all its ramifications before being set in motion. Clearly there was more than one conceivable alternative available to the IDF in the immediate aftermath of the provocation. By all signs, however, those alternatives were not systematically identified, explored, or rank-ordered by the civilian leadership or General Halutz. As a result, the IDF initiated its counteroffensive without anyone in the government's having given adequate thought to the campaign's likely conclusion.

An especially glaring deficiency in the government's chosen approach was that from the very start it offered no ready way of dealing with Hezbollah's Katyusha fire should coercion solely through standoff attacks fail to elicit the desired result. A no less glaring failure of situation assessment and strategy, this time particularly on the IDF's part, was that until very late stemming the rate of short-range rocket fire into northern Israel was never high on its list of priorities. Indeed, both the IDF's uniformed principals and the government's civilian leaders misunderstood fundamentally the strategic significance of the Katyushas until they finally awakened, in the campaign's last days, to the corrosive effect that the unrelenting, daily rocket fire was having on Israeli morale. Until then, their tendency had been to dismiss the Katyushas as representing merely a nuisance factor.

Yet another shortcoming in the IDF's planning and conduct of the war was a failure of insight into the true essence of the opponent it was facing. Indeed, Israel's entire security establishment erred in not recognizing from the campaign's start that it was fighting not just a homegrown Lebanese terrorist organization but a well-equipped and well-resourced vanguard of Iran. An associated issue here has to do with what was needed to defeat a stateless opponent, a challenge that entailed a fundamentally new paradigm of combat. Nasrallah, for his part, as the IAF's Brigadier General Itai Brun later pointed out, "correctly identified Israel's need for a clear and unambiguous victory in a short war. Thus, Hezbollah only had to survive" and to demonstrate its survivability by continuing to fire

rockets at a peak rate right up to the cease-fire. Hezbollah's strategy was, at its heart, "victory through nondefeat."[41]

In hindsight, the immediate challenge presented to Prime Minister Olmert and his government by Hezbollah's provocation of 12 July 2006 was clear and simple. If going in on the ground massively from the very start was unacceptable, then the proper opening move by the IDF should instead have been a sharp but short standoff reprisal with the aim of causing as much physical harm to Hezbollah's military infrastructure as possible within a finite period of time. With Nasrallah having thus been made to feel the greatest possible pain for his transgression, the punitive response would then have been abruptly halted, in the satisfaction that a clear message had been sent to Hezbollah and its Iranian sponsors.

If, alternatively, the Olmert government had deemed it essential to eradicate once and for all Hezbollah's ability to rain at will short-range rocket fire on innocent Israeli civilians, a properly targeted campaign of precision standoff attacks accompanied by a large-scale ground counteroffensive to regain control of southern Lebanon up to the Litani River was the only serviceable option. Either way, the image of Israel and the credibility of its deterrent would be preserved. No halfway solution would have worked, and yet that is exactly the kind of option that the Olmert government attempted to find in the end.

All of that said, looking back on Israel's second Lebanon war six years later, one can fairly ask whether the IDF's campaign was really that much of a lost cause after all. To begin with, it was easy enough for Nasrallah to proclaim in the war's early aftermath that he had "prevailed" simply by virtue of having survived. Yet the fact is that as a result of the IDF's sustained onslaught, his organization took a major beating and paid a high price for its abduction of the two Israeli soldiers. The IDF by its own accounting killed more than six hundred of his most seasoned combatants and severely wounded around a thousand more.[42] In addition, a considerable portion of Hezbollah's military infrastructure throughout Lebanon was destroyed or badly damaged by the IDF's relentless aerial and artillery bombardment. The campaign also made for an instructive experience for the IDF, in that it unmasked the true nature of Hezbollah, its strengths and weaknesses, how it fights, and the lethality of its Iran-supplied rockets and antitank weapons. By undertaking its response with such sustained intensity and vigor, Israel showed its determination to deal with Hezbollah using grossly disproportionate measures should a future challenge by the terrorist organization be deemed to require such force majeure.

In sum, the IDF's campaign against Hezbollah was not quite the unqualified setback for Israel that many had initially thought. Consider, in this regard, the new strategic reality that the second Lebanon war occasioned for both Hezbollah

and Israel. From the first weeks of his elevation to Hezbollah's leadership in 1992 all the way up to the start of Operation CHANGE OF DIRECTION, Nasrallah had lobbed short-range rockets into northern Israel from time to time with maddening regularity and impunity. Yet not a single rocket was fired from Lebanon into Israel during the years after the campaign ended until three were launched, desultorily and without effect, during the IDF's twenty-three-day operation against Hamas in the Gaza Strip in December 2008 and January 2009. Even though Hezbollah had by that time accumulated more short-range rockets than ever before, its leaders were quick to disavow any responsibility for those launches. This suggests that Nasrallah's postcampaign motivations and conduct were most decidedly affected by the significant bloodying that was dealt to his organization by the IDF in July and August 2006.

Finally, Hezbollah's role as a forward combat arm of Iran was starkly dramatized by the campaign experience, thus bringing into sharper focus the IDF's already keen appreciation of the seriousness of the Iranian threat. Moreover, Israel's sobering experience during the second Lebanon war drove home the emergent fact that a nonstate opponent of Hezbollah's sophistication was far more than just a nuisance factor for the country's security planning. On the contrary, with its revealed ability to hold large numbers of Israeli civilians at risk, the radical Islamist movement had in fact become what one Israeli analyst described as "a strategic threat of the first order."[43] In light of the substantial setback that was dealt by the IDF's counteroffensive both to Hezbollah as a terrorist organization and to the overarching strategic interests of Iran, to say nothing of the calm that has prevailed along Israel's northern border ever since the cease-fire went into effect in August 2006, one can fairly say about CHANGE OF DIRECTION what Mark Twain once said of Wagnerian opera—it's not as bad as it sounds. The only real remaining downside, as the IAF's Brigadier General Brun frankly admitted in an after-campaign reflection, is that "we [the IDF and the Olmert government] failed to protect Israel's civilian population and did not succeed in shortening the war."[44]

ON BALANCE

Operation CHANGE OF DIRECTION represented the first time in Israel's six-decade history that a major confrontation ended without a clear-cut military victory. The campaign's less than satisfactory outcome for Tel Aviv did not emanate from any particular single-point failure, least of all on the part of the IAF's universally acclaimed combat edge. Rather, in the words of two informed Israeli commentators, it stemmed from "an overall accumulation of circumstances."[45] More to the point, the war's outcome in no way represented a failure of Israel's air assets to perform to the fullest extent of their considerable, though not unlimited,

capabilities. Instead, it reflected an overarching deficiency in strategy choice, the most flawed elements of which were a failure by the IDF to update standing contingency plans for the immediate needs of the challenge at hand; an inconsistency between avowed goals, available means, and will to pursue them successfully; and placement by the leadership of friendly casualty avoidance above mission accomplishment in its rank-ordering of combat priorities.

Viewed in retrospect, it was clearly an overreach for Prime Minister Olmert to announce the all but unattainable goal of extirpating, in a single and limited combat operation, Hezbollah's deeply entrenched military presence in southern Lebanon. As a former IDF ground force general later observed in this regard, the government's decision to rely mainly on precision standoff attacks rather than to commit strength on the ground in pursuit of the prime minister's ephemeral goal stemmed not from any preexisting bias on Halutz's part in favor of airpower but rather from his superiors' "setting unrealistic objectives . . . and [then] creating the illusion that they were achievable . . . at a low price."[46] That is, buying into a baseless view of what airpower (or, more correctly, standoff firepower) alone could achieve by way of coercing desired enemy behavior was not where the Olmert government went astray. Rather, its most consequential misstep was taking an unreflective view of what military power of *any* kind, unaided by an effective strategy, might achieve in a campaign in which declared goals were so ambitious and unbounded.

That misstep going into Israel's war against Hezbollah in July 2006 was roundly corrected by the time the IDF was ready, a little more than two years later, to embark on its campaign against Hamas in response to similar rocket firings from Gaza against civilian population centers in southern Israel. Indeed, if there ever was an instance of lessons indicated by one disappointing combat performance being truly *learned* and assimilated by a defense establishment in preparation for its next high-stakes showdown, this was an exemplary case in point. The IDF's response to the insights driven home by its sobering experience during the second Lebanon war represents a classic example of institutional adaptability and self-improvement. As the director of the IDF's Dado Center for Interdisciplinary Military Studies recounted in an after-action reflection on the implications of Israel's response to Hezbollah in 2006, the IDF internalized a substantial number of appropriate conclusions from its manifest errors in planning and readiness. These conclusions included assessed needs for significant increases in regular and reserve ground force training, for renewed emphasis on high- as well as low-intensity warfare contingencies in planning, training, and force development, and for greater stress on cross-service integration in planning and training across the entire spectrum of likely future warfare.[47]

For their part, the IAF's leaders gleaned a similar but more service-specific set of conclusions from their rocky experience of working with Israel's ground forces during the second Lebanon war. Those conclusions included a need for deeper and more intimate mutual acquaintance and understanding between Israel's air and land warfare communities; joint planning of ground schemes of maneuver that routinely include IAF participation from the very start; stronger IAF representation at division and brigade levels; and decentralized control of attack-helicopter operations in air-land warfare.[48]

The IDF's subsequent twenty-three-day counteroffensive against Hamas in the Gaza Strip in late December 2008 and early January 2009 stood in marked contrast to the Olmert government's flawed conduct of the second Lebanon war. It was dominated by a more realistic matching of desired ends with available means. It also featured a greater willingness by Israel's political and military leaders to risk paying the campaign's likely price if need be.[49] In the more focused and disciplined way in which they planned and carried out their successful campaign against Hamas, those leaders substantially erased any residual doubts about the credibility of Israel's deterrent against any would-be regional challengers, for at least the near term.

NOTES

1. Hezbollah, which means "Party of God" in Arabic, is a virulently radical transnational Islamist movement that first arose in Lebanon in the 1980s and 1990s. It further deepened its roots there in the early aftermath of Israel's withdrawal from southern Lebanon in 2000 after the latter's occupation of that region for eighteen years following the first Lebanon war, of 1982. It is lavishly funded by Iran and is unswervingly devoted to the destruction of Israel. For an overview of the terrorist organization, see Augustus Richard Norton, *Hezbollah: A Short History* (Princeton, N.J.: Princeton Univ. Press, 2007).

2. The Katyusha is an inaccurate, unguided 107 mm or 122 mm rocket with a range of between twelve and twenty miles. It is essentially the same weapon as that employed by the Soviet army against the Wehrmacht on the Eastern Front during World War II. Hezbollah had an estimated thirteen thousand or more of them stockpiled in southern Lebanon when the war began.

3. Group Capt. Neville Parton, Royal Air Force, "Israel's 2006 Campaign in the Lebanon: A Failure of Air Power or a Failure of Doctrine?," *Royal Air Force Air Power Review* (Summer 2007), p. 81.

4. Roger Cohen, "Price of Disengagement: Beirut and Gaza Burn," *International Herald Tribune,* 15 July 2006; "The Crisis Widens," *Economist,* 15 July 2006, p. 45.

5. Maj. Gen. Isaac Ben-Israel, IAF (Ret.), *The First Israel-Hezbollah Missile War* (Tel Aviv: Program for Security Studies, College of Policy and Government, Tel Aviv Univ., May 2007; available in Hebrew only), p. 19; Amos Har'el and Avi Issacharoff, *34 Days: Israel, Hezbollah, and the War in Lebanon* (New York: Palgrave Macmillan, 2008), pp. 107–108.

6. Lt. Gen. Dan Halutz, IAF (Ret.), interview, IAF Headquarters, Tel Aviv, 26 March 2008.

7. Head of the IAF's Campaign Planning Department during Operation CHANGE OF

DIRECTION, interview, IAF Headquarters, Tel Aviv, 26 March 2008.

8. Brig. Gen. Itai Brun, IAF, Director, Dado Center for Interdisciplinary Military Studies, interview, Glilot Base, Tel Aviv, 26 March 2008.

9. Har'el and Issacharoff, *34 Days,* p. viii.

10. Karby Leggett, Jay Solomon, and Neil King, Jr., "Threat of Wider Mideast War Grows," *Wall Street Journal,* 14 July 2006.

11. Lt. Col. David Eshel, IDF (Ret.), "Summary of Israeli Air Force Strikes: 12–21 July 2006," *Defense Update: News Analysis by David Eshel,* www.defense-update.com/.

12. Ken Ellingwood, "Hezbollah Wields Improved Arsenal," *Los Angeles Times,* 15 July 2006.

13. Mark Mazetti and Thom Shanker, "Arming of Hezbollah Reveals U.S. and Israeli Blind Spots," *New York Times,* 19 July 2006.

14. Alon Ben-David, "Hizbullah Hits Israeli Corvette," *Jane's Defence Weekly,* 26 July 2006, p. 18.

15. Greg Myre, "Israel Widens Scope of Attacks across Lebanon," *New York Times,* 16 July 2006.

16. Helene Cooper and Steven Erlanger, "U.S. Appears to Be Waiting to Act on Israeli Airstrikes," *New York Times,* 19 July 2006.

17. Jay Solomon, Mariam Fam, Karby Leggett, and Neil King, Jr., "Israel Weighs Ground Offensive in Southern Lebanon," *Wall Street Journal,* 20 July 2006.

18. Gerald F. Seib, "Mideast: Israel Draws Little U.S. Ire," *Wall Street Journal,* 22 July 2006.

19. Quoted in "IDF Shake-Up over Hezbollah War," *JINSA Online,* 23 March 2007, www.jinsa.org/.

20. John Kifner, "Fragile Cease-Fire Allows Thousands to Return Home," *New York Times,* 15 August 2006.

21. For further discussion and documentation of these and related figures, see Lambeth, *Air Operations in Israel's War against Hezbollah,* pp. 70–71.

22. *Final Winograd Report on the Second Lebanon War* (Washington, D.C.: February 2008), chap. 9, "Arms, Combat Support Units, and Special Operations," s.v. "The Air Force, Facts," paras. 8, 18, 24, and 26.

23. For more detailed amplification on these and other achievements, see Lambeth, *Air Operations in Israel's War against Hezbollah,* pp. 73–133.

24. Halutz, interview.

25. Har'el and Issacharoff, *34 Days,* p. 62.

26. Brig. Gen. Yohanan Locker, IAF, head of the Air Division, interview, IAF Headquarters, Tel Aviv, 27 March 2008.

27. In an early example of this persistent misconception, the usually balanced and authoritative London-based International Institute for Strategic Studies (IISS), in its annual survey of the international security scene issued several months after the war ended, concluded that Halutz, IAF airman and presumed airpower enthusiast that he was, had "convinced the militarily naïve [Israeli] political leadership . . . that air power *alone* could bring Hezbollah to its knees." *Strategic Survey 2007: The Annual Review of World Affairs* (London: IISS, 2007), p. 231 [emphasis added].

28. Arie Egozi, "Israeli Air Power Falls Short," *Flight International,* 1–7 August 2006.

29. Ofer Shelah, *The Israeli Army: A Radical Proposal* (Tel Aviv: Kinneret Zmora-Bitan, 2003), p. 37.

30. "Testimony by Lieutenant General Dan Halutz, IDF Chief of Staff, to the Winograd Commission Investigating the Second Lebanon War," unpublished English translation from the original Hebrew, Jerusalem, 28 January 2007 [hereafter Halutz, testimony].

31. Alon Ben-David, "Israel Introspective after Lebanon Offensive," *Jane's Defence Weekly,* 23 August 2006, pp. 18–19.

32. Halutz, interview.

33. William M. Arkin, *Divining Victory: Air Power in the 2006 Israel-Hezbollah War* (Maxwell Air Force Base, Ala.: Air Univ. Press, 2007), p. 134 [emphasis original].

34. Halutz, testimony.

35. Testimony by Minister of Transportation Shaul Mofaz to the Winograd Commission Investigating the Second Lebanon War.

36. Har'el and Issacharoff, *34 Days,* p. 119.

37. Ibid., p. 172.

38. Dan Halutz, *Begova Einayim* [At Eye Level] (Tel Aviv: Yediot Aharonot Books, 2010; available in Hebrew only).

39. Ibid.

40. Quoted in Arkin, *Divining Victory,* p. 242.

41. Brig. Gen. Itai Brun, IAF, "The Second Lebanon War, 2006," in *A History of Air Warfare,* ed. John Olsen (Washington, D.C.: Potomac Books, 2009), p. 314.

42. Halutz, *Begova Einayim*.

43. Ron Tira, "Shifting Tectonic Plates: Basic Assumptions on the Peace Process Revisited," *Strategic Assessment* (Tel Aviv) (June 2009), pp. 100, 102.

44. Brig. Gen. Itai Brun, IAF, "The Second Lebanon War as a 'Wake-Up Call': A Strategic Perspective and Major Lessons Learned" (undated briefing charts, Dado Center for Interdisciplinary Military Studies, Glilot Base, Tel Aviv).

45. Har'el and Issacharoff, *34 Days,* p. ix.

46. Brig. Gen. Shlomo Brom, IDF (Ret.), "Political and Military Objectives in a Limited War against a Guerilla Organization," in *The Second Lebanon War: Strategic Perspectives,* ed. Shlomo Brom and Meir Elran (Tel Aviv: Institute for National Strategic Studies, 2007), p. 20.

47. Brun, "Second Lebanon War as a 'Wake-Up Call.'"

48. Brig. Gen. Ya'akov Shaharabani, head of the IAF Helicopter Division, interview, IAF Headquarters, Tel Aviv, 31 March 2009.

49. For a fuller account of this second IDF campaign and the many improvements in joint combat performance reflected in it, see Lambeth, *Air Operations in Israel's War against Hezbollah,* pp. 221–76.

CHINA'S AEROSPACE POWER TRAJECTORY IN THE NEAR SEAS

Daniel J. Kostecka

In order to defend the security of the national territory, marine territories and the waters within the First Island Chain, this proactive defense strategy does not mean that our navy only stays within the First Island Chain.
REAR ADMIRAL ZHANG ZHAOZHANG, APRIL 2009

Air and aerospace power has been fundamental for defending China's "near seas"—encompassing the Bohai Gulf, the Yellow Sea, and the East and South China Seas—since the founding of the People's Republic.[1] While air and naval operations did not play a significant role in the Chinese Civil War, which was won by the People's Liberation Army (PLA), the victorious Communist forces were threatened immediately by hostile air and naval forces from the maritime sphere. In 1949 the regime was ill equipped to defend its eleven thousand miles of coastline and more than six thousand islands against attacks and harassment from Nationalist Chinese air and naval forces occupying the large islands of Taiwan and Hainan, as well as several smaller islands, let alone protect the People's Republic of China (PRC) against the aircraft carriers of the powerful U.S. Seventh Fleet. Even before the People's Republic was officially declared in October 1949, communist leaders immediately recognized the need for strong naval and air forces; the PLA's commander, General Zhu De, stated in April 1949 that China "must build its own air forces and navy in order to boost national defense."[2] This need became apparent shortly thereafter, in June 1949, when the Kuomintang (KMT) government on Taiwan declared a blockade of coastal mainland ports and its naval and air forces began attacking coastal shipping and ports as well as laying mines in river estuaries.[3]

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Over the course of the 1950s the PLA achieved only mixed success in protecting China's coastline. In 1949 Communist forces captured Hainan Island, the second-largest KMT-held island, and most of the smaller offshore islands fell in the early 1950s. The PLA was also successful in stopping raids on the mainland and its merchant and fishing fleets. However, KMT forces stubbornly held on to Jinmen and Matsu, as well as a few additional islands such as Taiping (Itu Aba) in the South China Sea. Also, the PLA never represented a serious invasion threat to Taiwan—an issue that persists to this day. Further, throughout the 1950s the PLA naval and air forces were impotent against powerful U.S. forces operating in China's near seas, as evidenced by the Seventh Fleet's role in resupplying Jinmen in 1954–55, evacuating KMT troops and civilians from the Dachen Islands in 1955, and escorting KMT vessels resupplying Nationalist-held offshore islands in 1958.[4]

Despite a clear need to defend China's near seas, resource constraints in those years meant that coastal defense represented the extent of the operational capacity of the PLA's sea and air forces. The overall emphasis of the PLA Navy (PLAN) on coastal defense as opposed to longer-range operations was evidenced by the deployment of thirteen coastal-defense artillery regiments in 1951, the primary focus of naval aviation on air defense of fleet bases, and the disbanding of the PLAN marines in 1957, only three years after the force was established.[5] While PLAN aviation and aircraft of the PLA Air Force (PLAAF) flew several hundred sorties during the campaigns of the 1950s, they were primarily relegated to coastal air defense and operated under restrictive rules of engagement. On a positive note for the PRC, the 1950s ended with the KMT air force no longer operating at will over Fujian and Guangdong Provinces, due to a permanent presence of PLAAF and PLAN aviation along China's eastern and southern coastlines.[6] Overall though, while China's air forces demonstrated the capacity to defend Chinese airspace against KMT aircraft, they could do little to counter U.S. air and naval operations in China's near seas, as demonstrated by the Seventh Fleet's operations in and around the Taiwan Strait in the 1950s and the freewheeling nature of U.S. Navy and Air Force air support to United Nations forces during the Korean War.[7]

Throughout the 1960s and 1970s PLA air forces continued to emphasize coastal air defense and possessed little ability to exert influence in China's near seas. The KMT air force on Taiwan continued to fly reconnaissance missions over the mainland. (Several of these aircraft were shot down; in addition, PLAN fighters based on Hainan shot down a small number of U.S. Navy and Air Force fighters that strayed too close to Chinese airspace during the Vietnam War.)[8] However, some PLA combat operations in the 1970s called for China's air forces to push beyond the coastal-air-defense paradigm. In 1974, PLAN fighter aircraft flew thirty-eight sorties in support of operations to seize the Paracel Islands from South Vietnam, a mission that to this day represents the longest-distance opposed landing

executed by the PLA. Further, in the 1979 border conflict with Vietnam, PLAN aircraft flew 751 sorties in support of fleet units off Vietnam's coast, although no information is available regarding the types of missions flown.[9]

THE DEVELOPMENT OF NEAR SEAS DEFENSE

The need for China's air forces to push their operations farther out over water gained significance in the 1980s as China's naval strategy changed under the leadership of a dynamic commander. In 1982, new PLAN commander Admiral Liu Huaqing, building on developments of the 1970s, directed the Naval Research Institute to develop a regional naval strategy that was to become known as "Near Seas Defense" (more commonly, "offshore defense"), a strategy that would move the PLAN beyond coastal defense.[10] Like all other PLAN commanders prior to 1996 Admiral Liu had been originally an army officer, but—notably, in a military often dominated by the "great infantry" concept—he was more than just an infantryman serving in a naval billet. Liu proved to be an aggressive and forward-thinking maritime strategist, and by developing the strategy of Near Seas Defense and pushing for continued modernization he laid much of the intellectual and technical foundation of the PLAN of the early twenty-first century.[11]

Near Seas Defense has been characterized in a number of ways and is often generically described as referring to operations within China's two-hundred-nautical-mile exclusive economic zone. Admiral Liu, however, defined it as operations around and outside the "First Island Chain" (running from Japan to Taiwan and the Philippines), along with the Yellow Sea, East China Sea, South China Sea, and the islands in the latter—a zone that he considered inherently Chinese territory.[12] Liu further defined Near Seas Defense as a regional, defensive strategy specific to China's maritime claims and interests, and he did not advocate replicating U.S. or Soviet global naval capabilities. Instead, he made comparisons to the 1980s-era naval strategies of Great Britain, France, Germany, Italy, and Japan. Liu forcefully objected to the epithet "China's Mahan" that some were giving him, arguing that Alfred Thayer Mahan had developed naval strategies to serve the expansionist needs of imperialists and capitalists, whereas his strategic goals were to defend China from aggression and protect its legitimate maritime rights.[13]

While such talk may make for fine rhetoric, Liu's articulation of offshore defense is in fact far closer to what Mahan advocated for the United States than most realize. Two U.S. Naval War College scholars state, "Close study will reveal that Mahan never counseled naval war for its own sake. Far from espousing an open-ended American naval buildup, he urged the U.S. Navy to assume the strategic defensive in vital waters, chiefly the Caribbean Sea and the Gulf of Mexico, expanses that would provide America its 'gateway to the Pacific' once the Panama Canal opened."[14]

Just as Mahan argued that the control of the Caribbean Sea and Gulf of Mexico was essential to promoting America's development and defending maritime commerce and that the Caribbean was the strategic key to U.S. maritime frontiers on the Atlantic and Pacific Oceans, Liu discussed the importance of the Yellow Sea, East China Sea, and South China Sea as resource-rich and protective screens to sustain and shield China's development.[15] Mahan viewed key geographic points such as Cuba and Jamaica as essential for controlling access to the Caribbean and thus the soon-to-be-completed Panama Canal. Similarly, the strategy of offshore defense is concerned with the strategic importance of the Spratly Islands in the South China Sea owing to their location along strategic sea-lanes linking China to the Pacific and Indian Oceans, as well as to their overall importance in protecting the South China Sea, which Liu called "the southern gate of our motherland."[16] Additionally, while Liu wrote about Taiwan in terms of reunifying it with the homeland, subsequent Chinese strategists discuss Taiwan much as Mahan discussed islands like Cuba, Jamaica, and Hawaii—as keys to controlling maritime communications and protecting maritime interests or, if in the hands of foreign power, as barriers threatening trade and development.[17]

However, for all of Admiral Liu's strategic vision, he had to contend with something Mahan had not and for which Mahan's writings offered no useful insight—the dominance of airpower in the maritime battle space. When the strategy of Near Seas Defense was first put in place in 1987, the PLAN's lack of credible air defense for its surface ships and the obsolescence and short range of the fighter aircraft of both the PLAAF and PLAN meant that the latter could in fact do little to protect China's near seas against a serious opponent.[18] Beyond air defense in China's near seas, a lack of long-range precision-strike capability within the PLAN, PLAAF, and China's missile force, the Second Artillery, meant that China's military could do little in terms of offensive operations against enemy air and naval forces during a conflict on the nation's maritime periphery.

As the 1980s gave way to the 1990s, the need for the PLAN to be able to execute a near-seas defensive strategy became crystal clear. The collapse of the Soviet Union eliminated a large-scale threat that China's Central Military Commission had correctly recognized in 1985 was already diminishing. Operation DESERT STORM and subsequent U.S.-led operations against Iraq and in the Balkans throughout the 1990s demonstrated the effectiveness of long-range precision-strike technology. It became clear to PRC leaders that an enemy equipped with such weaponry could launch it against China's densely populated and economically vibrant coastal provinces from air and sea-based platforms outside the range of defenses. Further, the Taiwan Strait crisis of 1996—in which the United States deployed two aircraft carrier groups near Taiwan as a show of support against PRC missile-firing exercises intended to intimidate the island during its

first democratic elections—served as a harsh lesson to PRC leaders regarding their nation's vulnerability against a first-class military.[19] The 1996 crisis with Taiwan, along with U.S.-led air strikes in the Balkans in response to Serbian human-rights violations, also conveyed to Beijing that Washington was willing and able to interfere in the internal affairs of other nations, further heightening concerns in the PRC that it was vulnerable to U.S. military coercion. Modernization of both Japan's and Taiwan's navies and air forces, tensions on the Korean Peninsula, and China's increased integration with the global economy (the nation became a net importer of oil in 1993) contributed to Beijing's growing maritime security dilemma.[20] All this made Liu Huaqing's calls in the early 1980s for a navy capable of establishing command of the near seas seem prophetic indeed. The need for a modern navy capable of waging high-tech war to protect China's maritime periphery took on added urgency.[21] Concurrent with that need was a requirement for modern aerospace forces capable of projecting power into the near seas in order to cover Chinese naval forces, deny those areas to enemy aviation, and hold at risk enemy air and naval forces and logistics bases.

THE DEVELOPMENT OF COUNTERSTRIKE DOCTRINE FOR NEAR SEAS DEFENSE

In terms of potential conflicts in China's near seas, a Taiwan contingency is the foremost issue on the minds of many strategists on both sides of the Pacific Ocean. While China has developed the capability to conduct robust firepower-strike and blockade operations against Taiwan, the PLA does not now possess the ability to invade Taiwan. Therefore, in a time of crisis the overall goal for China would be to deter Taiwan from moving toward a formal declaration of independence while reserving the capability to punish Taiwan severely should it issue such a declaration and to prevent the United States, by threatening U.S. forces and bases throughout the western Pacific, from intervening on the island's behalf.[22] However, the focus on developing multimission platforms and weapons that can execute large-scale coercive and punishment operations against Taiwan is quietly evolving the PLA as a whole. It is becoming a balanced and flexible force capable of missions across the spectrum of military operations, including such nonwar operations as the ongoing counterpiracy deployment to the Gulf of Aden or the recent flood-relief operations in Pakistan. Additionally, the counterstrike capabilities that the PLA is developing to deter or defeat U.S. intervention in a Taiwan scenario would be just as useful for countering intervention in other contingencies in China's near seas. Recent statements by high-level American officials regarding American interests in the South and East China Seas and the inflammatory Chinese rhetoric over the November 2010 participation of the aircraft carrier USS *George Washington* (CVN 73) in exercises in the Yellow Sea

point to other potential areas of tension between Beijing and Washington in the western Pacific.[23]

Over the past two decades the PLA has, in order to execute China's Near Seas Defense strategy, pursued a counterstrike doctrine designed to take the fight to an enemy attempting to intervene in a regional conflict. Its operational element is known as "noncontact warfare." Sometimes incorrectly characterized as a "Sun Tzu–esque" method of winning without fighting, noncontact warfare is in fact the employment of long-range precision-strike systems from outside an enemy's defended zone against key nodes across the enemy's strategic and operational depth.[24] A standard 2005 work, *Science of Military Strategy,* discusses at length the need to conduct standoff attacks against key points and centers of gravity. Primary targets include command-and-control systems and logistics facilities. In fact, *Science of Military Strategy* holds that an enemy's primary combat forces should be attacked only after the destruction of information and logistics assets, because the combat effectiveness of the main operational forces will thus have been significantly weakened. The goal is not the wholesale destruction of an enemy's forces but their paralysis. The book draws analogies to the destruction of a body's brain and central nervous system.[25] For American planners, the relevant aspect of this line of thought is that in a conflict between the United States and China in East Asia, the first American targets the PLA goes after may not be carrier strike groups or the runways and parking aprons at Kadena Air Base on Okinawa. Instead, the PLA may choose first to attack the replenishment vessels that supply the strike groups at sea, as well as land-based logistics and command-and-control facilities. A December 2005 article in PLAN newspaper 人民海军 *(People's Navy)* pointed to the need for constant at-sea replenishment as one of the primary weaknesses of U.S. carrier strike groups.[26] With regard to broader counterstrike operations, the air bases that receive the most attention from the PLA in the early stages of a conflict are likely to be those where the United States bases such assets as airborne tankers and command-and-control aircraft.

The PLA's counterstrike doctrine is not particularly new. Airpower theorists have been claiming since the 1920s that strategic strikes against key targets can paralyze an enemy's war effort. In fact, the best articulation of the PLA's counterstrike doctrine can be found not in any book or article in Chinese but in a 1995 article by Colonel John Warden of the U.S. Air Force (now retired), "The Enemy as a System." Warden, one of the architects of the U.S.-led coalition's air campaign in DESERT STORM, presents a five-ring model, where the rings represent, from the inside out, a potential enemy's "leadership," "organic essentials" (such as electricity), "key infrastructure," "population," and "fielded forces." In terms similar to those used by the Chinese, Warden describes a properly executed air campaign as one that involves attacks against key targets to induce strategic and operational

paralysis, making engagements with an enemy's military forces either unnecessary or at least a virtually foregone conclusion.[27] Not surprisingly, Warden's views on airpower are known to the Chinese. Noted PLAAF general and military commentator Liu Yazhou calls Warden the "Douhet of our time," and the five-ring model receives prominent mention in the book *Air Raid and Anti–Air Raid in the 21st Century* (2002).[28]

The notion of inflicting strategic and operational paralysis through long-range, precision air and missile strikes is controversial to say the least, and the issue will not be debated here. For now it is sufficient to say that the PLA has developed and is refining a counterstrike doctrine based on classic airpower theory and applied through a growing array of precision-strike weapons. Operationally, this doctrine flows from the strategic framework articulated in the *Science of Military Strategy.* In turn, *Air Raid and Anti–Air Raid* calls for organizing counterstrike forces under a "counterattack operations group." The forces assigned to, or at least coordinated by, this body include the fighter and attack-aviation forces of the PLAAF and PLAN, conventional ballistic- and cruise-missile units, attack helicopters, surface ships, submarines, and special-operations forces.[29] Key targets include command-and-control systems, logistics, air bases, aircraft carriers, and missile launchers. As for aerospace forces, the books *Air Raid and Anti–Air Raid* (already mentioned), *Study on Joint Firepower Warfare Theory* (2004), and a 2006 National Defense University version of *Science of Campaigns* detail missile and air counterattack against command-and-control systems, air bases, air defenses, and logistics facilities, with an emphasis on large, fixed targets. Command-and-control systems are specifically called out as important targets for missile and air strikes, being nerve centers and force multipliers for enemy forces. Missile counterattacks are to be launched first, in order to create favorable conditions for air counterattacks meant to reinforce the effects of long-range missile strikes.[30] Additionally, naval-aviation fighter and bomber forces are tasked to perform counterstrike operations against enemy ships, while also providing air cover to PLAN forces at sea.[31] When coordinated strikes are not possible because enemy aircraft carriers and air forces are out of range, the authoritative *Science of Second Artillery Campaigns* highlights the importance of long-range conventional missiles in strikes against bases and carrier groups.[32]

THE MODERNIZATION OF THE PLA'S COUNTERSTRIKE AEROSPACE FORCES

In order to defend China's near seas and execute this ambitious counterstrike doctrine, the PLA has invested a great deal over the past two decades in modernizing the counterstrike capabilities of the PLAN, PLAAF, and Second Artillery. The result has been an impressive array of short- and medium-range conventional

ballistic missiles, ground- and air-launched cruise missiles, precision-guided land-attack munitions and the combat aircraft necessary to employ them, and highly capable antiship cruise missiles that can be fired from surface ships, submarines, maritime strike aircraft, and shore-based launchers. The Second Artillery is fielding the DF-21D (based on the CSS-5 airframe), a medium-range ballistic missile specifically designed to target U.S. aircraft carriers at sea.[33] While the PLA is not as capable across the board as the U.S. military, its concentration on specific counterstrike capabilities has enabled it to develop pockets of excellence in such areas as conventional ballistic missiles, submarines, antiship cruise missiles, and electronic warfare. As a result, the PLA is in a position to impose a high-risk calculus on opposing forces in the western Pacific in times of tension or war, particularly as they approach China's near seas.[34]

With regard to counterstrike aviation in the PLAN, the past decade has seen a transition from a primary concern with coastal air defense to a modern maritime-strike force. In the 1990s the PLAN took delivery of only a small number of early models of the J-8II interceptor and JH-7 maritime-strike aircraft. Today, through acquisition of new blocks of these airframes and upgrades to older systems, the PLAN fields five regiments of the JH-7/JH-7A and two regiments of the J-8II. It also operates one regiment of modern Russian-built Su-30MK2 Flanker multirole, maritime-strike fighters and is taking delivery of modern indigenous J-10 and J-11B (Chinese-built Flanker) fighter aircraft.[35] The JH-7/JH-7A, the PLAN's workhorse maritime-strike fighter, has evolved into a highly capable two-seat aircraft capable of employing the YJ-83K antiship cruise missile and advanced electronic-warfare systems. Complementing the JH-7/JH-7A units, the Su-30MK2 regiment can employ antiship and antiradiation variants of the Russian-made Kh-31 air-to-surface missile.[36] The J-8II, although based on an older design, can now employ, thanks to radar and avionics upgrades, modern beyond-visual-range air-to-air missiles; its range can be extended by refueling from the PLAN's small inventory of H-6 tanker aircraft.[37] Additionally, once fully operational, the J-11B and J-10 will combine with the Su-30MK2s to give the PLAN an ability to extend air defense to Chinese task groups beyond coastal waters. Complementing the PLAN's inventory of fighters and strike fighters are two regiments of H-6 maritime strike bombers (based on the Soviet Tu-16 of the 1950s but upgraded to employ modern antiship cruise missiles) and a single regiment of J-7E short-range interceptors.[38]

While not a global expeditionary force, PLAN strike aviation is a modern regional force that is in theory capable of covering, from its bases on the Chinese mainland, the near-seas defense areas defined by Liu Huaqing, including operations beyond the First Island Chain.[39] However, it should be noted that this arsenal of modern maritime strike fighters is at least somewhat constrained

by the well trained and equipped U.S. and Japanese air forces based on China's maritime periphery.

The Second Artillery is arguably the primary arm of the PLA that is tasked with counterstrike operations in China's near seas. The 2008 white paper on China's national defense states, "The conventional missile force of the Second Artillery Force is charged mainly with the task of conducting medium- and long-range precision strikes against key strategic and operational targets of the enemy."[40] According to the U.S. Department of Defense, as of late 2009 the Second Artillery had deployed over a thousand CSS-6 (six-hundred-kilometer) and CSS-7 (three-hundred-kilometer) short-range ballistic missiles within range of Taiwan, including a growing number with precision-strike capability. Additionally, the Second Artillery reportedly possesses up to a hundred CSS-5 (1,750-kilometer) medium-range ballistic missiles—the number is increasing—and up to five hundred DH-10 (1,500-kilometer) ground-launched cruise missiles. While the shorter-range ballistic missiles can only hit a limited target set beyond Taiwan, the growing number of conventionally armed and precision-strike-capable CSS-5s and DH-10s demonstrates the PLA's desire to be able to extend its counterstrike options throughout China's near seas.[41]

In addition, the Second Artillery, with the development of the DF-21D, now has a maritime mission against U.S. carrier strike groups. This system, under development for several years, is now operational, according to Admiral Robert F. Willard, former commander of U.S. Pacific Command.[42] A Second Artillery role in maritime strike was documented in PLA counterstrike doctrine almost a decade ago. *Air Raid and Anti–Air Raid* (2002) discusses the use of ballistic missiles in "surprise attacks at sea," and a February 2005 article in the journal 舰船知识 *(Naval and Merchant Ships),* "Nemesis of Aircraft Carriers," concluded that precision-guided ballistic missiles represented the best solution for overcoming an aircraft carrier's layered defenses.[43] The 2004 *Study on Joint Firepower Warfare Theory* stated that land-based-missile forces and naval forces should integrate high- and low-altitude missile attacks against aircraft carriers at sea and called for attacks on carriers in port.[44]

The PLAAF too plays an important role in counterstrike operations in China's near seas. Over the past decade the PLAAF has grown from a force primarily concerned with short-range air defense of the homeland to one capable of extending China's air-defense envelope over the water and, increasingly, of conducting long-range precision-strike missions.[45] A growing portion of the PLAAF comprises modern fighter aircraft like the imported Su-27 Flanker and the indigenous J-11B Flanker, the J-10, and (in upgraded variants) the J-8II. Additionally, the PLAAF employs the multirole Su-30MKK Flanker imported from Russia and several regiments of the JH-7A strike fighters, equipped with the

KD-88 land-attack cruise missile.[46] The PLAAF is upgrading its H-6 bombers to employ the YJ-63 and DH-10 land-attack cruise missiles. A significant part of this effort is the development of the H-6K, a new extended-range variant of the H-6 that when combined with the long-range DH-10 will be able to threaten U.S. bases, such as Guam, in the Second Island Chain.[47] As the PLAAF's inventory of long-range aircraft armed with standoff missiles grows, its capacity to expand the counterstrike envelope of China's Near Seas Defense strategy will expand as well.

AIRCRAFT CARRIERS

Another key element of China's maritime aerospace power trajectory is the PLAN's aircraft carrier program. The PLAN has refitted and modernized the Cold War–era Russian *Kuznetsov*-class carrier *Varyag* at Dalian shipyard; sea trials began in August 2011. The ship's air group is also taking shape. The PLAN's developmental carrier fighter is a domestically produced carrier-capable variant of the Russian-designed Su-27 Flanker known as the J-15.[48] Although the aircraft is still just a prototype and little is known about the program, it is reasonable to assume that the J-15 will possess the same radar, avionics suite, and weapons capabilities as the land-based J-11B.[49]

The former *Varyag* is equipped for ski-jump launch, and there is a strong possibility that at least the first domestically produced carrier will be likewise. Accordingly, in addition to the J-15, the PLAN is procuring and developing rotary-wing airborne-early-warning (AEW) platforms. According to Russian press and Internet reporting, China is taking delivery of up to nine Ka-31 AEW helicopters, and Internet photographs indicate it has fielded a prototype of an AEW variant of the Z-8 medium-lift helicopter.[50] At this writing it is unknown which will be chosen as the primary AEW helicopter for the PLAN's aircraft carrier force. It is possible the PLAN sees an indigenous platform based on the Z-8 as a long-term solution, with Ka-31s imported from Russia to serve as gap fillers.

It is unlikely China is developing aircraft carriers with the intent of employing them against U.S. Navy carrier strike groups in the Central Pacific in a twenty-first-century rehash of the battle of the Philippine Sea.[51] One Shanghai-based military expert states, "Our carrier will definitely not engage with powerful U.S. aircraft carrier fighting groups. But it is enough to be a symbolic threat among neighboring countries like Vietnam, Indonesia, and the Philippines who have territorial disputes with China."[52] Operationally, ski-jump carriers are much less capable than catapult-equipped carriers. In addition to limitations inherent in a rotary-wing AEW platform, fighters operating from ski-jump carriers are limited in the fuel and weapons they can carry and are generally relegated to providing air defense to the battle group rather than acting as offensive weapon systems.

However, this does not mean the PLAN's future aircraft carrier force poses no potential problem for U.S. forces in conflicts in or around China's near seas. In a regional conflict, land-based strike aircraft such as the JH-7A, H-6, J-11B, and Su-30MKK/MK2, as well as conventional ballistic and cruise missiles, could be called on for strikes, negating the need for the carrier's air group itself to project offensive force, in the American style. In this case, a carrier and its air group would complement land-based aircraft, extending situational awareness and air defense in the region. PLA doctrine clearly sees air cover for landing operations in regional conflicts in areas like the South China Sea as one of the primary wartime missions for PLAN aircraft carriers. Both the 2000 and 2006 editions of *Science of Campaigns* discuss the importance of carriers in providing air cover to amphibious invasions of islands and reefs beyond the range of land-based aircraft.[53] The 1998 book *Winning High-Tech Local Wars: Must Reading for Military Officers* states that one or two aircraft carrier groups should protect amphibious forces engaged in long-distance landings stationed 100–150 nautical miles from the shore.[54] While no conflict in the South China Sea is imminent, statements from Beijing asserting China's sovereignty over islands and their surrounding waters, in response to concern in Washington over competing maritime claims, have brought increased international attention to this area of key Chinese national interest.[55] Should the United States find itself involved in a conflict with China in the South China Sea, one or two PLAN carriers in the Spratly Islands providing air cover to landing operations and to surface combatants would complicate the efforts of U.S. forces to achieve air and sea superiority in the battle space.

Further, while future PLAN carriers might not provide much in the way of offensive strike potential against U.S. carrier groups, they could still play a key role in bringing combat power to bear. Admiral Liu Huaqing provided a specific geographic definition for Near Seas Defense, but some PLAN officers view it as an evolving concept that now extends farther out into the Pacific Ocean, as the PLAN's ability to operate its forces with "the requisite amount of support and security" increases.[56] As Rear Admiral Zhang Zhaozhang stated in April 2009,

> The Chinese navy does not need to fight in the Atlantic Ocean, the Indian Ocean or at the center of the Pacific Ocean. The Chinese navy follows a proactive defense strategy. However, in order to defend the security of the national territory, marine territories, and the waters within the First Island Chain, this proactive defense strategy does not mean that our navy only stays within the First Island Chain. Only when the Chinese navy goes beyond the First Island Chain, will China be able to expand its strategic depth of security for its marine territories.[57]

Near Seas Defense is about more than operations within the First Island Chain. If China's near seas are to be truly secure, the reach of the PLA's aerospace

forces must extend beyond it, must be able to engage hostile forces as far out to sea as possible. While *Air Raid and Anti–Air Raid in the 21st Century* does not specifically call for employment of aircraft carriers in a counterstrike role, it does envision fighter units providing air cover to surface ships and the surface ships, in turn, attacking aircraft carriers.[58] Even China's most modern land-based fighter aircraft cannot provide persistent air cover beyond the First Island Chain, but an aircraft carrier employed in support of counterstrike operations could provide air and antisubmarine (ASW) protection to surface ships in order to get them within weapons range of a U.S. carrier group.

SIGNIFICANT WEAKNESSES

The modernization of China's aerospace forces—with an array of advanced fighter, bomber, and strike aircraft, conventional ballistic and cruise missiles, and an aircraft carrier program—is impressive and should be taken seriously. But in less glamorous programs the PLA's aerospace forces experience significant shortfalls that impede their ability to conduct comprehensive counterstrike operations. Such capability gaps affect maritime helicopters, land-based maritime patrol and ASW aircraft, and airborne tankers.

Naval helicopters arguably constitute the single most glaring weakness within the PLAN today. The navy employs a mix of helicopters for ASW, search and rescue (SAR), and general utility; it has found them invaluable in counterpiracy operations in the Gulf of Aden. However, the PLAN's current rotary-wing fleet is wholly inadequate to support its force structure now, let alone in the future. The PLAN now operates between thirty and thirty-five frigates and destroyers equipped with landing pads and hangars. Other ships equipped with helicopter facilities include the aviation-training ship *Shichang,* the two Type 071 LPDs (amphibious transport docks) and their sister ships under construction, the Type 920 hospital ship, and the navy's three most modern at-sea-replenishment ships.[59] The PLAN's inventory of helicopters is approximately thirty-five. Only about twenty—the domestically produced Z-9s and Russian-made Ka-28s that perform ASW and SAR—are capable of operating from destroyers and frigates, though there is deck and hangar space for thirty or thirty-five. Additionally, about fifteen medium-sized Z-8s are capable of operating from larger ships, such as the LPDs and the hospital ship.[60]

This situation will only get worse as the PLAN adds more helicopter-capable surface ships to the fleet. Aside from the carrier program, a second LPD recently joined the fleet; also, the press reports that China plans to develop the Type 081 helicopter assault ship (LHD), similar in size and capability to the French *Mistral*-class LHD, approximately half the size of a U.S. Navy *Wasp*-class LHD.[61] The PLAN's most modern frigate and destroyer classes, such as the Jiangkai II

guided-missile frigate and the Luyang II guided-missile destroyer, have helicopter facilities and are replacing older ships that cannot operate rotary-wing aircraft.

The PLAN, accordingly, needs to add a substantial number of rotary-wing aircraft. This will likely be accomplished in the near term through the purchase of additional Ka-28s from Russia and production of additional Z-9s and Z-8s.[62] However, these solutions are not optimal, as China prefers domestic weapon systems to foreign purchases, the Z-9 is limited in capability owing to its small size, and the Z-8 suffers from engine problems. A potential future solution is a militarized variant of the Z-15, China's coproduced variant of the Eurocopter EC-175. However, the basic commercial variant of this platform is not expected to begin production until 2012; specialized military variants will thus not see production for several years at least.[63] The acquisition of new platforms and the organizing, training, and equipping of an expanded rotary-wing force will take a significant amount of time and effort.

Another weakness for PLA aerospace forces in the near seas is in special-mission aircraft, where a shortage of modern platforms and small overall numbers create significant capabilities gaps in maritime patrol and ASW. The PLAN operates a small number of patrol and AEW aircraft based on the four-engine turboprop Y-8 airframe, as well as a few SH-5 amphibious patrol aircraft.[64] All were acquired in the 1980s and 1990s, and, while serviceable, none are up to Western standards. It appears that the PLAN is taking delivery of a small number of Y-8W/KJ-200 AWACS (airborne warning and control system) aircraft. The addition of the modern KJ-200 will add to the navy's maritime surveillance capabilities, improving the ability of its fighters and strike aircraft to operate far out over water.[65]

Also, the PLAN does not now possess a land-based fixed-wing ASW capability at all. Given that absence and insufficient numbers of helicopters, ASW represents a significant weakness for the ability of the PLAN and China's aerospace forces in general to defend China's near seas. The problem is particularly acute as the PLAN seeks to expand its near-seas defensive operations into deep waters beyond the First Island Chain into the Philippine Sea and the southern part of the South China Sea, where its forces could find themselves vulnerable to hostile submarines in wartime. Internet reports claim the PLAN is developing the Y-8Q, an ASW aircraft similar to the U.S. P-3C, but (assuming this program exists) it will take several years for even a small number of airframes to become operational.[66]

The PLA's aerospace forces also suffer from a shortage of airborne tankers. The PLAAF now only possesses about ten tankers, based on the H-6 bomber, and the PLAN only three.[67] While the PLAAF's and PLAN's J-8II and J-10 fighters are capable of refueling from the H-6 tanker, and fighter units equipped with refueling booms conduct over-water aerial-refueling exercises, the small number of tankers and the limited capacity of the H-6 make this of limited value.[68] Using PLAAF

and PLAN tankers to give fighter aircraft added range would enhance the overall capability of a strike package in a specific tactical situation, but in practice the overall ability of the PLAAF and PLAN fighter forces to contribute to the expansion of China's strategic depth beyond the First Island Chain is constrained by an insufficiency of airframes. Making matters worse, a 2005 contract with Russia for between four and eight Il-78 tankers (along with some thirty-four Il-76 cargo aircraft) has not materialized, although rumors persist that it could be renegotiated.[69] Also, China's aircraft industry is not now producing an airframe suitable for conversion to aerial refueling. The failure to procure or develop such larger tanker aircraft means that China's Flanker-variant fighters cannot be refueled in the air, significantly limiting their usefulness.

As the PLA continues to modernize its forces and develop its counterstrike doctrine, its ability to expand its operations in support of China's Near Seas Defense strategy will increase. A significant element of this growing counterstrike capability resides in the aerospace forces of the PLAN, PLAAF, and Second Artillery. With an increasingly capable inventory of fighter and strike aircraft, conventional ballistic missiles, ground- and air-launched cruise missiles, and eventually aircraft carriers, the ability of the PLA's aerospace forces to threaten U.S. naval and air forces and bases in the western and Central Pacific will grow. Additionally, aerospace systems not discussed here, such as unmanned aerial vehicles and satellites, also have important roles in the development and growth of the PLA's counterstrike forces. However, the PLA is not without its weaknesses in this area. A shortage of antisubmarine helicopters and fixed-wing ASW aircraft is a serious impediment to the PLAN's ability to operate in deep water. The lack of airborne tankers limits the capacity of air force and navy fighter aircraft to sustain operations beyond the First Island Chain and in the southern part of the South China Sea. Finally, dominated as it is by what some officers call the "great infantry" concept, the PLA is inhibited in its ability to integrate its counterstrike capabilities into a joint force that is greater than the sum of its parts. While the PLA's capacity to extend its strategic depth in the conduct of near-seas defensive operations is impressive and has grown significantly over the past decade, weaknesses and capabilities gaps still exist, and these will continue to limit China's ability to defend its near seas.

NOTES

The views expressed in this paper are those of the author and do not necessarily reflect the views of the Department of the Navy or Department of Defense.

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PHASE ZERO

How China Exploits It, Why the United States Does Not

Scott D. McDonald, Brock Jones, and Jason M. Frazee

I n October 2006 General Charles Wald, Deputy Commander U.S. European Command, brought "Phase Zero" into the joint lexicon with the publication of an article, "The Phase Zero Campaign."[1] Over the last five years the concept of taking coordinated action in peacetime to affect the strategic environment has become widely accepted and is now integrated into theater campaign plans. These activities focus on building capacity of partners and influencing potential adversaries to avoid war. In contrast, Chinese strategic culture has encouraged taking actions to defeat an enemy prior to the onset of hostilities for two and a half millennia. This accounts, in part, for the manner in which the People's Republic of China (PRC) applies the elements of national power in the steady-state environment to advance its strategic interests. While the United States remains focused on preparing the environment and building partners, Chinese strategic culture states a preference for defeating an adversary before what Western thought thinks of as war has begun. This outlook ultimately places the PRC in a position of strategic advantage. To meet future challenges like that posed by the PRC, the United States should better integrate Phase Zero with contingency (crisis) planning, then design and execute operations in the steady-state environment that go beyond avoiding war and attempt to settle conflicts in accordance with the national interests of the United States.

It is important to remember that the fundamental purpose of the military is war, which Clausewitz defines as "an act of force to compel our enemy to do our will."[2] If the purpose of Phase Zero is to be changed to reaching a decision —winning—in the steady-state environment, it must be discussed not only in terms of bending the enemy's will but as including all components of national power—diplomatic, informational, and economic, as well as military—that can be brought to bear against an adversary.

U.S. military planners have used the term "Phase Zero" for only five years, and it has no equivalent in Chinese strategic tradition. However, as this article aims to influence the manner in which U.S. planners approach Phase Zero, the phrase will be used to discuss both U.S. and Chinese thinking on how to employ the instruments of national power prior to armed combat.

From that basis, this article will analyze how Chinese strategic culture encourages decisive action prior to the onset of hostilities. Recent PRC actions will then be examined in this light to illustrate how a more decisive concept of Phase Zero can be implemented. The strategic culture of the United States will then be examined to understand why it has not more fully incorporated the concept of Phase Zero into planning and operations, despite the welcome the concept has enjoyed in the context of the operations against Islamic fundamentalists.

THE CHINESE STRATEGIC CONTEXT

The seeds of Chinese strategic culture were sown in the chaos of the Warring States period (475 to 221 BC). This epoch of continuous warfare saw seven states compete for dominance. They enlisted the aid of administrators and strategists who would eventually catalog the principles that came to epitomize Chinese political and military thought. These documents retain their relevance today, not only because of the longevity of Chinese civilization but because they are still read by, and influence, PRC decision makers.[3]

The Chinese intellectual tradition developed separately from that of the West and approaches the world from a different perspective. As one Western scholar notes, "Instead of seeking to pick out common features that are more or less fixed, more or less stable, it sets out to explore the limits of the possibilities of change."[4] In fact, it is in this very notion of change that much of traditional Chinese strategic thinking rests. Central to this understanding is the concept of *shi* (勢).[5] *Shi* can be translated as "power," "momentum," "tendency," or "state of affairs."[6] Another Western scholar, attempting to convey all its contextual meanings, translates it as "strategic configuration of power."[7] This is sufficient when discussing troop formations and physical force but seems to fall short in passages such as "[The king] displays his form but conceals his nature. He is like the heights of Heaven, which cannot be perceived. . . . If he should execute but does not, great thieves will appear. If strategic military power [*shi*] is not exercised, enemy states will grow strong."[8] This passage from *The Six Secret Teachings of Tai Gong* suggests that *shi* is more than bringing forces to bear but includes an existent potential that may or may not be employed by the king. In fact, it is in the sense of potential in any situation for change and development that *shi* helps shed light on how Chinese strategic culture views operations in what the West has come to call Phase Zero.

Most confusing from the Western perspective is the sense that this latent potential naturally comes to be. Various Chinese philosophical traditions admonish their followers for trying to alter the potentiality of a situation. In fact, attempting to change the future is often viewed as disadvantageous.[9] If this is the case, how is strategy to be understood at all? How can there *be* any strategy at all?

Mencius, who was arguably the most influential disciple of Confucius and whose teachings were influential in the development of Confucian thought, alludes to this apparent dichotomy in his discussion of the spirit.[10] He argues that the spirit must be nourished and protected but that one should not "try to assist its natural growth." To illustrate he draws an analogy to a man who, in attempting to improve the size of his crop, ruins his corn by pulling on it. However, "those who think it useless to feed their spirit and simply let it alone are as it were neglecting to weed their crops."[11] In other words, one must take action, but by nurturing the already developing situation and establishing the conditions necessary for the desired outcome, not by intervening directly in the process—that is, the potential of the corn's natural growth.

To intervene as little as possible, one must intervene as early as possible. One gets a sense of this in Sunzi's admonition that "the highest realization of warfare is to attack the enemy's plans; next is to attack their alliances; next to attack their army; and the lowest is to attack their fortified cities."[12] By acting on a situation as early as possible—and as far away from the ultimate objective as possible—one achieves the desired result with least effort. Sunzi also argues that he who excels at warfare "directs his measures toward victory, conquering those who are already defeated."[13] The general knows the outcome because he has read the situation correctly and influenced it well before battle is engaged. This sheds light on Sunzi's often repeated dictum that the best general wins without fighting.[14] He has intervened early enough in the situation that it develops toward his desired result without requiring a resort to armed force.

This sense is echoed by the Daoist philosopher Laozi. He specifically advises action as early in a process as possible, because it will be easier then to gain the desired result. A master of the Dao "anticipates things that are difficult while they are easy, and does things that would become great while they are small. All difficult things in the world are sure to arise from a previous state in which they were easy, and all great things from one in which they were small. Therefore the sage, while he never does what is great, is able on that account to accomplish the greatest things."[15]

He also saw the value in allowing the course of events to tend naturally toward a desired end state. However, "the sage" does intervene in the situation in order to place himself in a position to benefit from that tendency. Laozi uses the analogy

of a river, arguing that a state becomes great by placing itself downstream, where small states will incline naturally toward it: "thus it is that a great state, by condescending to small states, gains them for itself."[16] In other words, he advocates pretending to be humble to obscure one's true intent from the adversary and allow it to move toward one of its own accord.

In sum, China's strategic culture encourages intervening subtly in a situation long before armed conflict arrives to alter the strategic landscape. Or, to translate the concept into a Western context, by laying the groundwork in Phase Zero the strategic landscape can be altered so that the objectives of the state can be achieved, and with minimal fighting.

THE PRC AND PHASE ZERO OPERATIONS

Examining a nation's strategic culture is only useful if the knowledge gained aids in understanding actions taken by the modern state. Such an analysis requires examining recent PRC activities for signs that its leaders are attempting to nurture the strategic environment through diverse actions that tend to develop the situation to their strategic advantage. Analyzing these actions from the perspective of the components of national power is useful in framing this analysis for a Western audience.

Diplomatic. The PRC has adeptly used the art of diplomatic protest. Such has been the case when Beijing protests U.S. and South Korean combined naval exercises in waters west of the Korean Peninsula. On more than one occasion the United States has acceded to PRC demands by either not deploying a carrier strike group or moving an exercise to the East Sea, off Korea's east coast.[17] Simply by nudging with a little rhetoric, Beijing gets the United States to comply with its interests and apparently to abandon its long-held principle of freedom of navigation. In the case mentioned the United States did eventually hold exercises in the Yellow Sea, but the fact that it first deferred to PRC interests has potential negative implications for the confidence allies have in the will of the United States to stand by them when the PRC disagrees.

The PRC has also effectively used diplomacy to limit the defensive capabilities of Taiwan. In 2009 President Barack Obama approved six billion dollars' worth of arms sales to Taiwan.[18] However, this sale did not include several items specifically requested by Taiwan and that Taiwan deems necessary to fill critical capability shortfalls. While the Taiwan Relations Act legally obliges the U.S. government to "make available to Taiwan such defense articles and defense services in such quantity as may be necessary to enable Taiwan to maintain a sufficient self-defense capability," the nature and timing of that support seem to be increasingly influenced by PRC pressure.[19] While Washington publicly maintains a policy of not consulting the Chinese on arms sales to Taiwan, it is difficult to

view persistent delays in selling articles of a defensive nature as anything other than attempts to dodge their ire.

PRC diplomacy has also sought to encumber the United States through its support of North Korea and Iran. When it became apparent the South Korean corvette *Cheonan* had been sunk by a North Korean torpedo, the PRC remained tight-lipped, refusing to condemn the act or even to acknowledge North Korean involvement. Neither did Beijing issue a rebuke to North Korea for its artillery barrage of the South Korean island of Yeonpyeong. The PRC has also been successful in undermining diplomatic efforts toward Iran, consistently opposing U.S. or multilateral actions to stop the development of Iranian nuclear weapons.[20] Taken together, this support of countries directly opposing the United States complicates the strategic environment in two ways. First, it requires Washington to continue to devote attention to these problems rather than to the disruption of the PRC's strategic momentum. Second, should U.S.-PRC hostilities occur, it would complicate the military problem for the United States, which would have to worry always about what North Korea or Iran might do on its flank.

In this light, it is hard to consider the Six Party Talks on North Korean nuclear weapons as other than a Beijing diplomatic victory. Seizing the opportunity to step onto the world stage and lead a multilateral process, the PRC has managed to gain praise from the Western world for contributing to international processes, thus fitting the West's picture of a responsible stakeholder. However, the Chinese have most to gain from the Six Party process by keeping it going, thereby preventing resolution of one of the main security concerns of the United States, as well as keeping the world focused on North Korea rather than the PRC.

Informational. On 13 February 2011, *USA Today* published the results of a Gallup Poll finding that 54 percent of Americans think the People's Republic of China is the world's leading economy, compared to 32 percent who think—accurately—that the leading economy is still the United States. The fact itself may be irrelevant, but the sentiment speaks to the power of perceptions that the PRC is trying to influence. An understanding of this helps explain why the PRC has recently made courting and hosting high-profile international events a matter of national policy. The pageantry and grandeur of the 2008 Olympic opening ceremony in Beijing is the most obvious example of how the PRC is using these events in an attempt to have world opinion ratify its ascendance.

Marketing oneself to the world, however, is not the only goal of the informational component of national power. Even the manner in which information is disseminated has an impact on the strategic environment. For example, the People's Liberation Army Air Force chose to demonstrate its new J-20 fighter while U.S. secretary of defense Robert Gates was visiting Beijing.[21] Choosing to display this new capability while ostensibly reestablishing military-to-military

relations with the United States sends a message to the world that the Chinese are conducting negotiations from a position of strength. It is not a stretch to conclude that it is the Chinese who are determining the tenor and pace of the bilateral relationship—a conclusion that neighboring states may well consider when determining their own policies relative to the PRC.

In the Internet age, controlling information is becoming as important as influencing opinions. Mounting evidence suggests not only that the PRC is very interested in this sort of activity but that it is behind many sophisticated computer-network operations. Attacks widely believed to have originated in the PRC have targeted diplomats from the United States and partners, politicians, human-rights campaigners, military networks, and corporations.[22]

Two Internet incidents in 2010 reveal attempts by an unknown actor to manipulate the very means by which information is transmitted. "In one, mass Internet traffic, particularly that with U.S. military addresses, was routed through China for about twenty minutes. In another, Internet users in the United States and Chile found it impossible to contact certain Web sites that the Chinese government has deemed to be politically unacceptable to its own population."[23]

While responsibility for the diversions has not been confirmed—it is often difficult to pinpoint the exact sources of Internet operations—if the PRC's army of hackers can effectively control the world's Internet routing, even if only briefly, the PRC will possess the capability to manage the information that its adversaries receive. Even the integrity of one's own information might then be called into doubt.

Military. Faced with a qualitative disadvantage in conventional forces relative to the United States, the PRC has spent decades developing and producing a wide array of ballistic, cruise, and air-defense missiles that could avoid U.S. strengths, put assets at risk, and be relatively cheap to protect or replace. "For this reason, missiles have permeated the doctrine of the People's Liberation Army (PLA) for every important kind of operation, from denial to blockade, and the PLA officer corps views them more and more as the way to level the playing field against a superior adversary."[24] A case in point is the antisatellite missile test of 11 January 2007, wherein U.S. satellite command, control, and intelligence systems were put under threat.[25] Now that these Chinese investments are bearing fruit, the strategic balance of the western Pacific is changing. U.S. forces can be put at risk earlier in a regional conflict than was once possible, and many of their technological advantages are negated, by inexpensive missiles. The likelihood of rapid U.S. victory is seriously reduced and its probable cost increased. This potential affects the calculations both of a United States considering war and of regional nations considering accommodation.

Of course, "soft power" influences the strategic landscape as well. With the launch of its own ten-thousand-ton hospital ship—pennant number 866—the People's Liberation Army Navy has established a means of projecting "soft power" around the world.[26] This capability may increase the PRC's leverage by allowing it to display goodwill in places where previously it could offer only resource extraction. This is a tool that the United States has used to great effect regionally, in part because no one else could employ it as quickly or efficiently. The hospital ship and new amphibious ships could, over time, aid the PRC in its desire to be seen as a U.S. peer in the region.

Economic. While there is debate over the actual role of the overvalued yuan (the PRC currency) in either the PRC's strategic calculus or the economy of the United States, it has become a focal point of U.S. economic policy making. The United States has repeatedly argued the PRC is manipulating its currency to maintain leverage over the global market.[27] Perhaps the most valuable part of the debate from the PRC's perspective is that it keeps the United States focused there while Beijing pursues its own development strategy. Additionally, the perception that PRC markets are essential to U.S. businesses shapes economic calculations that reach into the debate on policy toward the PRC. For example, Boeing is one of the PRC's largest suppliers of aviation technology, including half its commercial aircraft.[28] It might seem that this should provide leverage to the United States, but instead it is Beijing that has been willing to use such linkages to threaten U.S. businesses. This occurred in the wake of the January 2010 announcement of arms sales to Taiwan, following which the PRC made an explicit threat to stop trading with any U.S. business that sold weapons to the island.[29]

The Strategy. When the actions outlined above are taken as a whole, a strategy starts to emerge. Actions across the components of national power taken by the PRC coalesce into a single strategic momentum whereby Taiwan and its surrounds are being isolated not just militarily but in the minds of decision makers in Washington and the western Pacific. The Chinese leaders are attempting to create the perception that the PRC is locally too strong, allies are too few, economic and military costs are too high, and victory is too difficult to risk coming to Taiwan's aid. The goal is to convince the United States to decide not to defend Taiwan, so that it can be easily absorbed—peacefully if possible, in a one-on-one battle if necessary.

Anomalies. Despite the building strategic momentum outlined above, over the last two years the PRC has made several overt moves that appear to discard its strategic tradition in favor of a more overt and aggressive foreign policy. PRC vessels harassed USNS *Impeccable* on 8 March 2009.[30] Then, repeated ramming of a Japan Coast Guard vessel by a Chinese fishing boat on 7 September 2010, in

waters administered by Japan but claimed by the PRC, became a blatant display of bullying when the PRC cut off rare-earth exports to Japan in retaliation for the arrest of the boat's captain.[31]

Though some might argue that these are merely examples of the PRC leadership attempting to seize the initiative in situations that had already developed naturally to their own advantage, it could also be argued that the reaction of the United States and regional countries to this new assertiveness shows that the PRC would have been better off sticking to its cultural heritage and continuing to allow the world geostrategic situation to develop in its favor. In fact, recent public statements by Chen Bingde, chief of the PLA General Staff, emphasizing the large lead the United States enjoys in military technology and China's weaknesses suggest that the PRC realizes it overreached and is attempting to return to a more measured path.[32]

U.S. STRATEGIC CULTURE, DOCTRINE, AND PHASE ZERO OPERATIONS

Since General Wald brought the term "Phase Zero" into common usage five years ago, it has become a standard part of U.S. joint doctrine and is routinely discussed by operational planners and commanders. However, implementation falls short of meeting Phase Zero threats, such as those posed by the PRC. This failure is due to a combination of U.S. strategic culture, a doctrinal disconnect, and the tendency to refight the current conflict.

U.S. Strategic Culture

In his well-known 1973 work *The American Way of War,* Russell Weigley argues that U.S. strategy has historically concentrated on destruction of enemy forces, not on the larger political context. Prior to the Second World War, he states, "the United States usually possessed no national strategy for the employment of force or the threat of force to attain political ends."[33] While the U.S. military has recently refocused on small wars and counterinsurgency campaigns, its concern has been tactical. "Shaping" operations normally planned in Phase Zero (as discussed below) are focused on strengthening local populations against insurgents or their influence. Thus, two analysts argue that the question driving U.S. strategy in the future will be "where, when, and how America should help partners and allies build the capacity to defend and govern themselves in a legitimate and just and therefore sustainable manner."[34]

In fact, this idea that Phase Zero primarily supports partners has established a false dichotomy between Phase Zero operations and the military conflict in U.S. military thought. Criticism of the American inability to adapt to the "limited war" of Iraq and Afghanistan often faults the U.S. military for its difficulty in

"limited force" peace enforcement and humanitarian operations. The subtext of this criticism is a bias toward seeing conflict only in terms of the exercise of armed force.[35] This is a reflection of the U.S. strategic narrative, which sees a battle of wills only as a competition of armed force, in the Clausewitzian tradition, the corollary of which is to see limited-force operations only in terms of nonconflict. Consequently, only before or after the conflict does the United States focus on hearts, minds, and the distribution of humanitarian aid. What is missing is a concept of actively bending the will of potential adversaries without the resort to armed conflict. In short, because the United States views a battle of wills only in terms of armed force and has been preoccupied with strengthening populations against irregular threats, it has failed to recognize the value of the Phase Zero concept for bending an adversary's will.

One scholar argues that as a result of America's success in the Pacific for the last sixty years, individual service cultures now reinforce the idea that what has worked will work, that there is no need to change course. As a result of this conviction, the U.S. military may have become inflexible in the face of emerging threats and unprepared for the Pacific's evolving security environment.[36]

Doctrinal Disconnect

Further hampering the ability of the United States to counter the PRC's strategic advantage is its own joint doctrine, which in its present incarnation encourages a bifurcation between Phase Zero and the rest of a campaign. While the United States has made advances in understanding how all elements of national power impact the operational environment, there is an artificial line between preconflict and conflict scenarios.

While formal theater campaign planning attempts to build an integrated approach to building partner capacity and deterring adversaries, it is not designed to counter an adversary's own advances. A recent requirement to nest contingency (crisis) plans in theater campaign plans appears to be a direct attempt to integrate Phase Zero into contingency planning, but this is still not the case in terms of doctrine.[37] This is because the pertinent doctrinal publication, *Joint Operation Planning,* Joint Publication 5-0 (or JP 5-0), defines and limits Phase Zero operations as follows:

> [Phase Zero operations] are executed continuously with the intent to enhance international legitimacy and gain multinational cooperation in support of defined national strategic and strategic military objectives. They are designed to assure success by shaping perceptions and influencing the behavior of both adversaries and allies, developing allied and friendly military capabilities for self-defense and coalition operations, improving information exchange and intelligence sharing, and providing U.S. forces with peacetime and contingency access.[38]

This definition misses any sense of acting in accordance with a contingency plan to change the adversary's will. In fact, JP 5-0 goes farther: "Planning that supports most 'shaping' requirements typically occurs in the context of day-to-day security cooperation, and combatant commands may incorporate Phase 0 activities and tasks into the SCP [security cooperation plan]. Thus, these requirements are *beyond the scope* of JP 5-0."[39] In short, the security cooperation and contingency planning are separated. This may make sense if Phase Zero is viewed only as a means for shaping the environment. However, if Phase Zero is truly part of resolving a contingency in one's favor, it must be part of the planning for the contingency; so actions taken in Phase Zero are aimed at disrupting the adversary's plans and bending his will toward the desired end state.

The Obscurity of the Present

The conflicts in Iraq and Afghanistan have forced the U.S. military to remember a forgotten tradition in small and irregular wars: the use of methods other than force to influence the strategic situation. However, because the current campaign focuses on counterinsurgency, the methods of influence revolve around shaping the environment by building support among the people. While this is important, it has led to the perception that Phase Zero, per se, is simply a tool for preparing an environment or building support among a populace, not a means of attacking an adversary's will. As has been noted, this movement in perception "occurs below the level of grand strategy and is largely reactive. The changes focus on the major problems at hand: large-scale counterinsurgency and stabilization operations like those in Iraq and global efforts to track and locate known and suspected terrorists."[40]

Robert Gates stated this explicitly in 2007, as secretary of defense:

> We can expect that asymmetric warfare will remain the mainstay of the contemporary battlefield for some time. These conflicts will be fundamentally political in nature, and require the application of all elements of national power. Success will be less a matter of imposing one's will and more a function of shaping behavior—of friends, adversaries, and most importantly, the people in between.[41]

One could argue Gates correctly identified the emerging nature of warfare and even adversaries as targets of shaping operations. However, by de-emphasizing "imposing one's will," which Clausewitz considered the fundamental element of war, he separated shaping operations from their most important role—defeat of an adversary in advance of armed conflict. Gates's position suffered from a view of future warfare as a reflection of the last conflict. In fact, one analysis of the U.S. military's use of culture notes the recent celebrity enjoyed by "culture" as a symptom of Washington's willingness to throw money at almost anyone or anything that offers a solution to "contemporary problems."[42]

Even General Wald's introductory discussion of Phase Zero focused on hearts and minds of the populace.[43] While this appeared to make sense in the preemptive counterinsurgency campaign that U.S. European Command was running in Africa at the time the article was written, it does not actually lay the foundation for integrating Phase Zero into the resolution of contingencies in favor of the United States. As Wald noted, the European Command's ultimate goal for Phase Zero is "building capacity in partner nations that enables them to be cooperative, trained, and prepared to help prevent or limit conflicts."[44] While preventing or limiting conflict is an admirable goal, it is not useful if a conflict is already under way.

What emerges from this study is a PRC whose leaders are drawing on a strategic culture that emphasizes acting early and subtly to manipulate adversaries into positions of disadvantage. They hope in this way to win strategic victories and bend the wills of their adversaries without ever engaging in physical combat. At a minimum, they hope to engage in combat with the upper hand. Standing in the way of the PRC's objectives is the United States, a country with the world's preeminent military but prevented from taking decisive action in peacetime by its own culture, habits, and doctrine. This bias prevents decision makers in the U.S. military and government from seeing PRC operations as part of a conflict in process, and it cedes the strategic momentum to an active adversary.

While the United States has recognized the importance of Phase Zero, it has failed to take full advantage of the concept, because it has not integrated the principle with the idea of bending an adversary's will. To do so, the United States should redefine Phase Zero as follows: *acting across the components of national power during steady-state conditions in order to compel the adversary to do our will, thereby avoiding the need for combat or entering combat under more favorable conditions.* This definition includes actions taken to support allies, partners, and even friendly populations, as the ultimate aim of such actions is to convince adversaries that these groups are both capable of supporting us and willing to do so.

By redefining Phase Zero in this manner, the United States will force itself to reconsider the way it acts in the steady state, as well as the way it evaluates actions taken by others. This definition more fully integrates the concept of Phase Zero into the phase structure of contingency (or crisis) planning, emphasizing that the goal is to resolve a contingency successfully, not just prevent or limit it. This change not only encourages U.S. military planners to integrate day-to-day operations better with possible contingencies but facilitates the recognition that there are those in the world who are attempting to use their own understandings of strategy to undermine the will of the United States during peacetime. With this recognition, planners will be intellectually armed to take the actions required to disrupt the strategic momentum of those who wish the nation harm.

NOTES

1. Charles F. Wald, "The Phase Zero Campaign," *Joint Force Quarterly* (October 2006), pp. 72–75.

2. Carl Clausewitz, *On War,* trans. Michael Howard and Peter Paret (Princeton, N.J.: Princeton Univ. Press, 1984), p. 75.

3. Due to the closed nature of the PLA's education system, it is hard to determine the extent to which historic Chinese texts are taught; see Paul H. B. Goodwin, "The Cradle of Generals: Strategists, Commanders, and the PLA–National Defense University," in *The "People" in the PLA: Recruitment, Training, and Education in China's Military,* ed. Roy Kamphausen, Andrew Scobel, and Travis Tanner (Carlisle, Pa.: Strategic Studies Institute, 2008), p. 338. However, writings from Chinese security academics demonstrate the use of traditional thinkers; see Peng Guangqian and Yao Youzhi, eds., *The Science of Military Strategy* (Beijing: Military Science, 2005). Michael Pillsbury, *China Debates the Future Security Environment* (Washington, D.C.: National Defense Univ. Press: 2000), catalogs several PRC establishment thinkers who have applied Chinese classical strategic thought (pp. xxxv–xlvi).

4. François Jullien, *A Treatise on Efficacy: Between Western and Chinese Thinking,* trans. Janet Lloyd (Honolulu: Univ. of Hawaii Press, 2004), p. 179.

5. The authors thank Dr. Stephen Peter Rosen for recommending this course of inquiry.

6. As with many Chinese characters, there are several possible translations of *shi,* and its meaning is contextual.

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8. "The Six Secret Teachings of Tai Gong," in ibid., p. 50.

9. Jullien, *Treatise on Efficacy,* chap. 2, discusses the concept in detail and from several different perspectives.

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14. Ibid., p. 161.

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16. Ibid., sec. 61.

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THE NAVY'S MORAL COMPASS

Commanding Officers and Personal Misconduct

Captain Mark F. Light, U.S. Navy

> *The supreme quality for leadership is unquestionably integrity. Without it, no real success is possible.*
>
> <div align="right">DWIGHT DAVID EISENHOWER</div>

The U.S. Navy has an integrity problem in the ranks of its commanding officers (COs). Consider these headlines: "Cruiser CO Relieved for 'Cruelty.'"[1] "CO Fired, Charged with Solicitation."[2] "CO of Attack Sub Fired for 'Drunkenness.'"[3] These are just a few cases in a recent deluge of early reliefs of "skippers." In 2010, twenty-three Navy COs were relieved of command and "detached for cause," an enormous increase over previous years. The trend continues: twenty-one commanding officers were fired in 2011 as of the end of October.[4] Even more worrisome is the fact that a large and increasing percentage of those dismissals are due to personal misconduct, such as sexual harassment, drunkenness, and fraternization. Although (as far as we can tell) over 97 percent of the Navy's commanding officers conduct themselves honorably, the increasing number of those who do not raises concerns that the Navy must address. Alarms should be sounding at the highest levels of Navy leadership, but a review of recent literature reveals only a trickle of discussion on the subject of personal misconduct by military commanders. Instead of calling the service to action, a Navy spokesman said in January 2011 that there was "no indication that the reliefs are the result of any systemic problem."[5]

The premise of this article is that this *is* a systemic problem, that although the number of offenders is low, it is too high. The excessive (and increasing) number of COs fired for personal misconduct is symptomatic of cultural issues within the Navy and of a confusing

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ethical context in society, combined with a failure to set effectively and uphold an ethical standard within the service. The Navy needs to make adjustments in priority, policy, training, and personnel processes in order to stem the tide of personal misconduct by leaders. As a new Chief of Naval Operations (CNO) ends the first year of his tour of command, this article opens the door for debate and reexamination of the Navy's policies, standards for command, and ethical foundations.

While the percentage of misconduct seems small, the impact is of such a magnitude that this issue absolutely must be addressed, and the Navy has demonstrated that it can remedy this type of problem. Consider that in 2003 the Navy's aviation mishap rate was 1.89 mishaps per hundred thousand hours flown and had hovered around that value for several years after decades of steady improvement. At that time the secretary of defense directed that we reduce the mishap rate by 50 percent, because even that small figure included numerous costly mishaps that could and should have been prevented.[6] At the secretary's direction, Navy leadership undertook a fundamental effort to improve aviation safety. By 2010 the priority and emphasis given by the leadership had dropped the rate to 0.94 mishaps per hundred thousand flight hours, saving millions of dollars and dozens of lives.[7] Similarly, today the number of COs fired for personal misconduct is too high, and we can and must do better—but doing so will require that Navy leadership makes it a priority.

THE DATA: BACKGROUND

This article is based on data provided to the author by the Career Progression Division of the Naval Personnel Command. The data included administrative information and causes for dismissal of all commanding officers who were relieved while in command from 1999 through 2010 and for whom "detachment for cause" (DFC) procedures had been initiated and approved. Because of the administrative burden of the DFC process, senior leaders may choose not to implement it after a CO has been fired, if the situation does not require the specific funding and personnel adjustments for which formal detachment for cause provides.[8] The actual number of COs fired, then, is significantly larger than the DFC numbers cited here, but no comprehensive records exist of firings for which DFCs are not processed. The data also listed several officers in command positions with ranks of lieutenant commander (O-4) and below, which are excluded from this analysis. This article is intended to address character failures in more senior leaders who have had sufficient time in service to understand clearly the standards of command and in whom the Navy had opportunity to identify the potential for these failures of character before their consideration for command.

There exists a significant gap in the data concerning causes for dismissal. The summary information provided to the author indicated causes for dismissal by the categories used by the Navy's *Military Personnel Manual:* misconduct, a significant event, unsatisfactory performance over time, or loss of confidence in the officer's ability to command.[9] In the 101 DFCs evaluated, every submission cited either "loss of confidence" or a "significant event," with not one case citing misconduct or poor performance over time. In some cases an explanation amplified the category assignment; open-source information provided clarification in additional cases.[10] Ultimately the causes for approximately 20 percent of the dismissals for cause cannot be effectively determined from the data and are omitted from the analysis, but the trends are clear enough that valid conclusions may be drawn notwithstanding.

Although published literature on the subject is scarce, as noted, this is not the first study. In 2004, the Naval Inspector General (IG) conducted an in-depth review of COs fired between 1999 and 2004. The IG team had access to and analyzed information concerning all COs fired in that period, whether DFCs had been processed or not, and so produced a more statistically complete picture of the situation over that period.[11] That study is valuable today as a source of amplifying information and is used below as a basis for comparison.

THE DATA: NUMERICAL ANALYSIS

Figure 1 presents the total number of DFCs from 1999 through 2010, "broken out" between professional causes (e.g., ship groundings or failed inspections) and personal misconduct (such as fraternization or alcohol incidents). For the purpose of this analysis, such ethical violations as cruelty and abusive leadership were grouped with the personal-misconduct causes, whereas more generalized

FIGURE 1
CO DFCs BY CAUSE: PERSONAL AND PROFESSIONAL
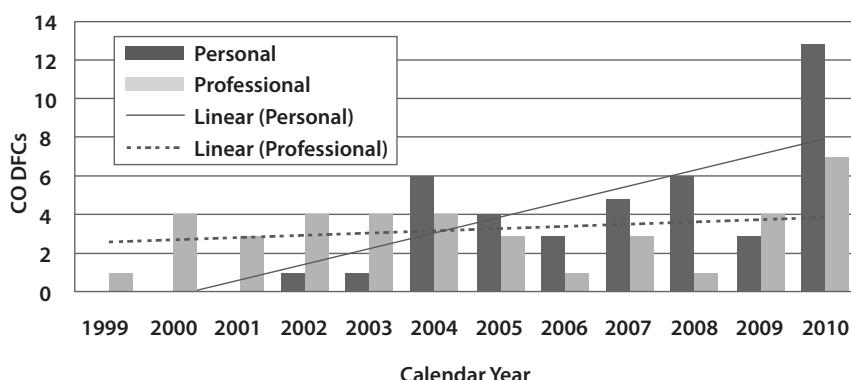
leadership failures, such as poor command climate or ineffective leadership, were classified as professional. The superimposed linear-regression trend lines make clear that while the rate of CO dismissals for cause for professional reasons is rising only slightly, there is a marked and increasing trend in the number of reliefs for personal and ethical causes.

Figure 2 breaks out dismissals for cause of commanding officers due to personal misconduct by community within the Navy: surface, aviation, submarine, and other (including special warfare, Medical or Supply Corps, human resources, etc.). Each case is categorized by the community of the officer, as opposed to that of the command from which he or she was fired. For instance, an aviator serving as CO of a ship when relieved was grouped with the aviation community.

For context, officers from the aviation and surface communities each hold about 25 percent of the total number of O-5 and O-6 (commander and captain) commands in the Navy, submariners about half as many. The remaining 37 percent are held by officers of other communities. The data seem to indicate that the surface and submarine communities are largely responsible for the significant spike in 2010, when the number of surface DFCs for personal misconduct was nearly an order of magnitude above that for any previous year. As for the aviation community, although it does not show an obvious increasing trend, it is responsible for the largest total number of dismissals for cause and the largest percentage of commanding officers fired.

Figure 3 presents commanding-officer DFCs for personal misconduct by rank. About 45 percent of Navy CO billets are for O-6s. Notably, the number of DFCs is

FIGURE 2
CO CDFs: PERSONAL/ETHICAL CAUSES, BY COMMUNITY
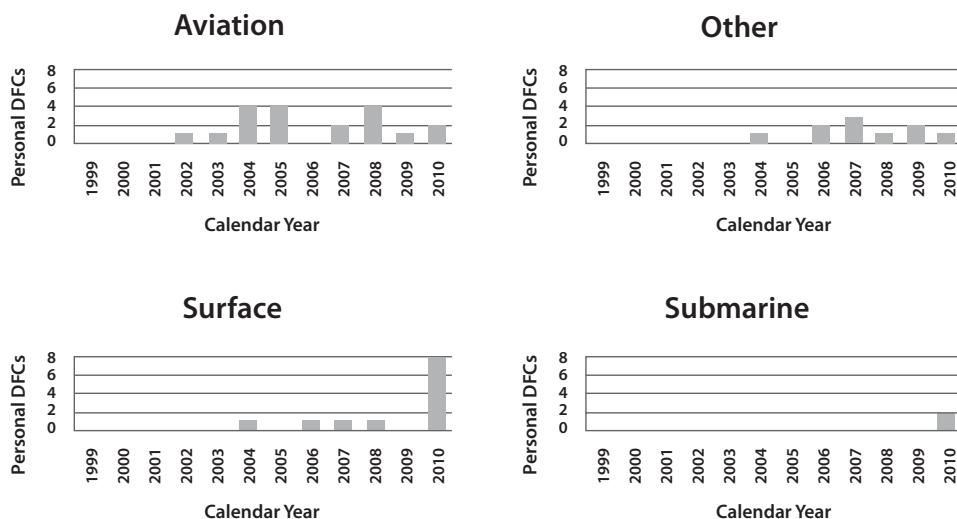
FIGURE 3
CO DFCs: PERSONAL/ETHICAL CAUSES, BY RANK
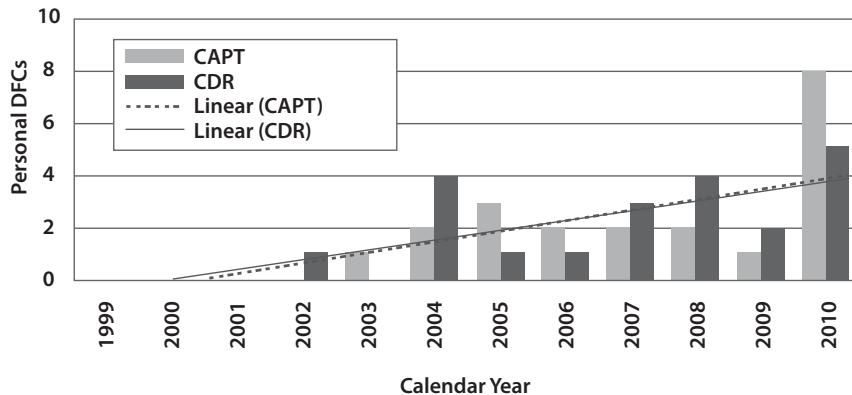
as great for captains, who are generally in their second or third command tours, as for commanders, even though there are fewer billets in the higher rank.

Figure 4 compares CO DFCs with respect to shore-duty and sea-duty billets. About 62 percent of Navy CO billets are shore duty, involving nondeploying commands based ashore. The sea commands are either deploying shore-based units or vessels. Both have similar trend lines and raw numbers. Since there are fewer sea-duty billets, the similar totals mean that the percentage of commanding officers fired from sea-duty billets for personal misconduct is higher than that for COs on shore duty.

We have noted that not all commanding officers fired are administratively "dismissed for cause." Before proceeding, it is worth discussing the actual relationship between the two numbers. The 2004 Naval IG study listed seventy-eight COs fired between 1999 and 2004;[12] the DFC data used for this article include

FIGURE 4
CO DFCs: PERSONAL/ETHICAL CAUSES, BY DUTY TYPE
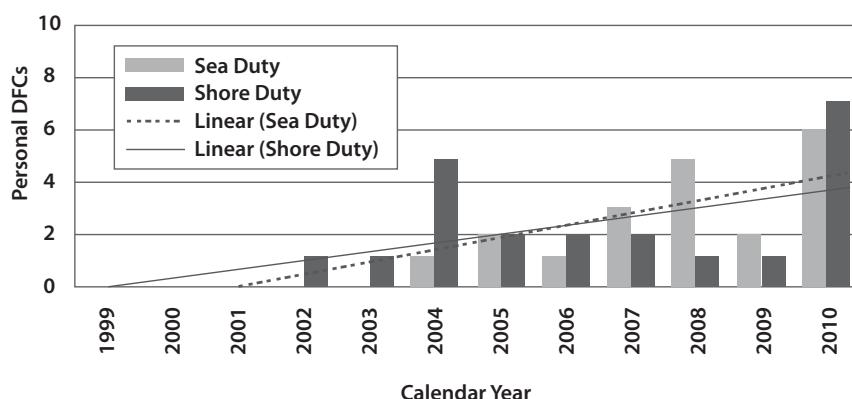
only thirty-seven for that period. The difference is partly explained by the scopes of the studies—the IG study included O-3 (lieutenant) and O-4 commanding officers and officers in charge (typically of very small units), who were specifically excluded from this analysis. Beyond that, the difference between the study results reflects that between the number of fired COs and the number processed for DFC.

Despite the differences, this article points to trends that are consistent with the data from the earlier study. The Naval Inspector General reported that 36 percent of early reliefs occurred due to personal misconduct; this article records 42 percent of DFCs for the same reason, with an increase over the time span covered.[13] Further, the studies are consistent with regard to the contribution of the various communities to early reliefs due to misconduct, with aviation being the most prolific and the submarine force the least. So while the numbers differ, a consistent and logical argument emerges that a significant and increasing number of COs in the Navy are being fired for personal and ethical failures.

ACADEMIC ANALYSIS

It is fundamental to understand that the COs fired for misconduct knew their actions were out of line. The IG report states that in "nearly every case, the officers relieved for personal behavior clearly knew the rules."[14] Interviews with active and retired flag officers reveal the same. Interviews likewise indicate that the COs who were fired did not feel that the rules did not apply to them. Instead, either they believed they would not be caught, that Navy leadership would not hold them accountable, or that their misconduct was worth risking their career, or they chose simply to ignore the consequences entirely. All of these logic trains are flawed, and that lack of judgment in our leaders is of concern in itself. But the basic issue is this: Why are detachments for cause due to misconduct by Navy leaders increasing, and how can we encourage future generations of leaders to reverse the unsettling trend?

One contributor to the barrage of incidents of CO misconduct is the fact that the personal and professional standards by which commanding officers are judged have become stricter in recent years. This fact was highlighted by Kevin Eyer, a retired Navy captain and former Surface Warfare Officer, who cites a litany of cases in the 1980s in which abusive use of power and even alcohol-related arrests were ignored as long as the officers involved were effective in terms of accomplishing the mission.[15] Few familiar with the Navy over the past twenty years are likely to dispute the point that actions once overlooked are today grounds for DFC.

Is it right that the standards have changed? Yes, because the mission of today's Navy demands tighter standards. Captain Eyer notes that he drew his examples

from the years of the Cold War;[16] the mission of the Navy then was to be prepared to defeat the Soviets at sea and maintain freedom of navigation around the world. Today, the Navy's missions go far beyond those objectives in complexity, including engagement, partnership, security, and unprecedented levels of deterrence.[17] Modern technology, instant communications, and a twenty-four-hour news day are among the tools the Navy uses to leverage its global presence in support of those missions. But that same technology vastly increases the potential strategic impact of lapses in integrity by our ship captains and squadron commanders.

Our credibility as a Navy and a nation suffers when our military leaders behave in ways contrary to the nation's interests. One of the enduring U.S. national interests is "respect for universal values at home and around the world."[18] The most recent Barrett National Values Assessment for the United States identified honesty, compassion, respect, and responsibility/accountability as among the qualities most valued by Americans.[19] Drunk driving, adultery, fraud, and cruelty are not in line with these interests or values, and such behavior jeopardizes our legitimacy as we endeavor to promote our values around the world. Thus misconduct by a commanding officer is a mission failure, and offending individuals are rightfully being held accountable.

As standards of behavior for COs have been raised, so has the likelihood of violators being caught. In years past, allegations of wrongdoing often remained mere allegations, because words alone are generally not sufficient to indict anyone, let alone a commanding officer. However, e-mails, security cameras, cell-phone cameras, electronic records of calls and texts, and "smart phones" with web access have changed the landscape dramatically. As Eyer points out, subordinates have a plethora of means to document and report perceived offenses of their skippers.[20] Furthermore, that same technology has made it increasingly difficult to deal with such transgressions quietly and privately; it is just as easy to post incriminating evidence on YouTube as to send it to the officer's superior. Commanding officers who violate the trust bestowed on them can expect technology to allow them to be caught and held accountable, often in the public eye. So why do some take the risk?

Some psychologists contend that people's actions may be products of their environment, and their research focuses on the extent an individual's behavior can be linked to outside situations.[21] Philip Zimbardo is among the camp that believes the environment can cause otherwise good people to become evil; he claims that the model explains the abuses of Abu Ghraib prisoners at the hands of American soldiers.[22] Others cite the "Bathsheba Syndrome" (named for the object of biblical king David's affection whose husband David sent to the front lines to be killed so the king could have her as his own), which is receiving attention

in academic and Navy circles for its lesson that many can be susceptible to the temptations that accompany power and authority.[23] Is there a link between the culture and environment of command in the Navy and undesirable behavior?

There are clearly cultural factors that work against the service's efforts to improve behavior, to raise and enforce standards of commanding-officer conduct. Historically, the captain of a Navy ship had to be strong and independent to maintain order among the crew in hostile environments and to execute missions far from home with only tenuous communications with superiors. Navy regulations state that "the responsibility of the commanding officer for his or her command is absolute" and that "the authority of the commanding officer is commensurate with his or her responsibility."[24] As Lord Acton said in the late nineteenth century, "All power tends to corrupt and absolute power corrupts absolutely."[25] The absolute authority bestowed on commanding officers by regulation could conceivably breed toxic leadership traits and cruelty. The data indicate signs of abusive leadership—three DFCs between 1999 and 2010 were due to cruelty or abusive leadership by the commanding officer—but abuse of power falls well short of fully explaining the broader trend of increasing misconduct.

Tradition suggests other possible explanations. The culture of the Navy is steeped in tales of behavior that does not fit the model to which we aspire today: drunkenness, bar fights, gender biases, womanizing—the list goes on. Sailors were *expected* to "let off steam" when their ships came into port, and they did. If this article were being written in the 1980s, there would be a fair argument that our culture promotes the behavior for which skippers today are being fired. But in the decades that followed, standards of acceptable behavior Navy-wide changed, along with standards for COs. Alcohol was deglamorized, and alcohol-related incidents became career ending for officers. Hazing ceased to be acceptable; ceremonies that had involved humiliation, degradation, and discomfort (chief petty officer initiations, "Crossing the Line" ceremonies) were transformed into events that built esprit de corps without hurting bodies, emotions, or spirits. Aviation stunts and joyriding ("flat-hatting") were no longer acceptable. Commanding officers were held accountable for violations of the new standards in their units. But the behavioral standards now in place are in competition with long-standing cultural norms; they increase personal accountability without addressing the cultural or character deficiencies that underlie unacceptable behavior. Former Secretary of the Navy John Lehman exemplified this smoldering cultural legacy in his lament over the death of naval aviation culture.[26] Furthermore, the extensive social media feedback in support of his position from current naval officers demonstrates the power underlying his traditional sentiments. The result is a small but steady tradition-fed stream of misconduct at all levels—misconduct

that is more likely than it once was to be detected, more harmful to the Navy's mission, and more likely to make headlines when it involves a CO.

Another relevant aspect of Navy culture is intolerance for mistakes. A recent article, noting that as a junior office the celebrated Chester Nimitz ran a ship aground, postulated that the future fleet admiral would not have gone far in today's Navy, with its risk aversion and intolerance for errors.[27] That writer obviously believes Navy leadership has gone too far recently in punishing errors, both professional and personal. Intolerance for professional mistakes is beyond the scope of this project, and we have already stated that personal misconduct on the part of Navy leaders must not be accepted. But the zero-defect mentality may cause behavioral problems in junior officers to be hidden or covered up, reducing the opportunity for correction, mentoring, development, and instruction in ethical standards.

In addition to the culture of the service as a whole, each community within the Navy has its own convictions and subculture. Aviators are perceived by others as cowboys, rule breakers, "Top Gun" officers' club partiers, and flirts. The aviation community, as noted, has the highest number of CO DFCs for personal misconduct, on average 50 percent higher than for surface warriors. The averages fit the stereotype and culture of traditional naval aviation (as cited by former secretary Lehman and discussed above), but questions arise when the trends are examined. The aviation DFC rate has a virtually horizontal trend line, while the surface and submarine communities show recent spikes. One explanation is that the 1991 Tailhook debacle hit the aviation community much harder and closer to home than it did the others, meaning that "airdale" misconduct peaked years ago, before the period encompassed by our data. If this is true, then the very policies that Mr. Lehman rejected as stifling appear to have had a positive effect on aviation command. The ultimate cause of the absence of a significant increasing trend in the aviation community is not obvious in the present data, and further study is in order. However, the naval aviation culture, as glamorized in movies and naval history (and echoed by the former Secretary of the Navy) may continue to be attractive to people with adverse behavioral tendencies and may be conducive to unacceptable actions, despite the increased professionalism seen in the community in recent years.

On the other hand, surface officers are considered stoic and businesslike. Nonetheless, they are seen (at least by members of other communities) as highstrung and competitive—it is often said that the surface subculture "eats its young." Cultural traits in the surface community include public degradation and bullying.[28] These factors could both reflect and produce abusive leadership, and such a stressful work environment might lead to alcohol abuse. But of the twelve

surface CO dismissals for cause for personal or ethical reasons, only one was due to abusive leadership, and none cited alcohol-related incidents. Yet in 2010 the surface community exhibited the greatest increase in DFCs in the Navy. (The increase was largely in the category of sexual misconduct, which will be addressed shortly.) The argument that rising misconduct in the surface community is due to organizational culture or environment does not seem to hold much water.

The submarine community, finally, is quiet, intelligent, and secretive, and its officers mirror the platforms they operate. It is not surprising that little information can be gleaned from the data in this study. It may be a testimony to the submariner culture that the causes of nearly half of the CO DFCs in the undersea community could not be determined.

Organizational culture notwithstanding, the most prevalent cause of DFCs of commanding officers in every community has been sexual misconduct, including inappropriate relationships, fraternization, and sexual harassment. Some have written that this phenomenon is a product of the Navy's environment, that such failures are to be expected in the seagoing community, where men and women are now confined in close quarters for months at a time.[29] Mixed-gender crews certainly present significant leadership challenges. Consider the commanding officer fired after nine chief petty officers aboard his ship were found to be having sexual relationships with junior sailors under their charge, although that CO did not know about the relationships.[30] But though fired for ineffective leadership, he personally maintained the higher moral ground and did not fall to the temptation of an inappropriate relationship of his own, which is why he is not numbered with the personal DFCs.

The problem is *not* mixed-gender crews. Of the forty-two personal CO DFCs in this study, twenty (48 percent) involved sexual misconduct. Fewer than half involved COs of shipboard commands. Of those, one involved a relationship between a submarine CO and an officer in the Army—clearly not a product of integrated crews. The propensity for sexual misconduct is obviously widespread, but not because men and women deploy together. Whether on a ship with a mixed crew or ashore, commanding officers must keep their relationships in line with the provisions of the Uniform Code of Military Justice and the *Manual for Courts-Martial* prohibiting adultery and fraternization.[31] Failure to do so (like any other misconduct) is a violation not only of the law but of the character that each commanding officer is entrusted with maintaining.

We should explore the concept of character further. General H. Norman Schwarzkopf highlighted the importance of character (but fell short of defining it) when he said, "Leadership is a potent combination of strategy and character. But if you must be without one, be without strategy."[32] The Josephson Institute lists as "the six pillars of character" trustworthiness, respect, responsibility,

fairness, caring, and citizenship.[33] Closely related to character is ethics, the set of "standards of behavior that tell us how human beings ought to act in the many situations in which they find themselves."[34] Intuitively, one who exemplifies the pillars of character is likely to act in conformance with how a person "ought to act"—in other words, ethically. Ethics is not religion, nor is it adherence to law or cultural norms.[35] It is about doing the right thing.

Ethical decisions must be based on a standard of right and wrong, and finding consensus for such a standard is especially difficult in today's society.[36] A high-ranking officer in the Navy's chaplain community notes that while Navy standards have always been high, today's social ethical context is confusing. For example, the media glamorize wealth, fame, sexual promiscuity, and self-satisfaction, while the Navy is attempting to promote better behavior. News agencies jump on any hint of misconduct in leadership but just as fervently scream foul when an institution's standards seem too conservative or when they echo too closely religious tenets, of whatever faith. But in the midst of this confusion, the Markkula Center for Applied Ethics offers a simple question to test whether a given decision is ethical: "If I told someone I respect—or told a television audience—which option I have chosen, what would they say?"[37] The will to ask such a question, to embody the pillars of character even (especially?) when nobody is watching, and to allow one's conduct to be driven by such ethical analysis is the foundation on which we want our leaders to be developed.

ELEVATING THE CHARACTER OF NAVAL LEADERSHIP

The Navy is holding commanding officers to a special behavioral standard, as well it should, but that alone will not solve the problem. Beyond merely holding COs accountable for misconduct, leadership needs, in order to improve the quality of our commanding officer corps and our service, to take positive action to develop each officer's moral compass and establish an ethical standard.

Step One: Establish a Sense of Urgency. Generating urgency has been called the first task in achieving transformational change in a large, complex organization.[38] In my view, it requires acknowledgment of the problem, identification of the impacts, and elevation of the priority of the issue on the basis of a full understanding of those impacts. On the first point, the Navy has made an effort to be transparent and open, but it has fallen short of fully acknowledging the problem. Personal misconduct by COs exists in all branches of the military, but the headlines seem to be predominantly Navy. Clearly, Navy leaders have committed themselves to holding commanding officers publicly accountable for their actions, which is vastly preferable to hiding them until a disgruntled subordinate posts a video online for the world to see. Unfortunately, beyond public firings, there has been no fundamental effort on the part of senior leadership to elevate

the issue to a level that will produce meaningful change. This article, appearing as it does in the first year of the tenure of a new Chief of Naval Operations, is an effort to try to spark that sense of urgency.

Step Two: Set the Standard. The Deputy Secretary of Defense recently released a memo emphasizing the need for all Department of Defense personnel to act ethically. "Fundamental values like integrity, impartiality, fairness, and respect must drive our actions, and these values must be reinforced by holding ourselves and each other accountable."[39] In the same vein, the Army has published a pamphlet, *Army: Profession of Arms 2011,* that explicitly stresses the need for adherence to an unfailing service ethical standard. It argues the necessity for all officers, especially leaders, to take the high moral ground in their discretionary judgments. Furthermore, the *Army Operating Concept* of 2010 includes three pages of ethical and behavioral discussion and draws attention to the Army's core values: loyalty, duty, respect, selfless service, honor, integrity, and personal courage.[40]

There is no similar proclamation of ethical standards in Navy policy literature, and there is no parallel discussion in the *Naval Operating Concept* of 2010. The Navy's core values—honor, courage, and commitment—are concise and easy to remember but make only implicit reference to ethical standards. If the Navy is to improve conduct from the top down, it must *explicitly* focus on the fundamental ethical standards that underlie the behaviors it wants to promote. Unless we stress ethical standards, our efforts to change behavior will always fall short.

A retired four-star admiral, noting the reluctance of leaders to implement ethical standards specifically, suggested that there was concern that such efforts would be construed as religious. But ethics are not religion. Another camp argues that the fact that character and ethics are "implicit" in the stated core values of the Navy is enough; one admiral observes, "You can't have honor without integrity." But if they make only implicit reference to character, we can expect only implicit compliance. A treatise on ethics in the *Naval Operating Concept* is unlikely to change a given officer's behavior. But as one element of a Navy-wide campaign to emphasize character and set ethical standards for the officer corps, it might help create a shift in the mind-set and the culture as a whole, precisely what our service requires. Such a change will not occur unless the top level of Navy leadership makes ethical behavior a clear priority.

Step Three: Improve the Metrics. The Bureau of Personnel's Fitness Report and Counseling Record (NAVPERS 1610/2) is the Navy's basic periodic evaluation—that is, the metric—for all officers in the grade of captain (O-6) and below. The effectiveness of the promotion and screening process is determined by whether the system correctly identifies officers worthy of selection—and perhaps more importantly, of nonselection. Our system needs improvement. Many of the COs

fired for personal misconduct should never have been selected for command. Nine of the dismissals for cause cited in this study were due to alcohol-related incidents, and it is likely that previous supervisors of these officers were aware of their propensity to drink. At least sixteen DFCs were for inappropriate relationships, and while some of them may have been difficult to foresee, in many cases signs were likely present that should have been addressed. Behaviors such as cruelty, abuse of position for personal gain, solicitation of prostitution, and indecent exposure typically do not suddenly or without warning appear in an otherwise upstanding officer. Somebody knew, or should have known, but did not document the behavior adequately to prevent selection for command.

Part of the problem is the previously noted dearth of published policy on character and behavior in this era of ethical confusion. Further, there is almost a complete lack of focus on ethical training for naval officers. In twenty-two years of active Navy service, the only Navy training on ethics the author received was on fraud and financial abuse, and that used a very legalistic approach, with little actual discussion of ethics. The "standards of conduct" training for COs recently mandated by the CNO (in the wake of the firing of those involved in the "XO Movie Night" episode) is merely Scotch tape on the problem—a robust, durable, career-long emphasis is still not in place.[41] Once an officer has been selected for command, it is too late to try to develop integrity and character. This absence of training for all officers to a set standard has led to a failure of leadership. Many commanding officers have shown misguided support to junior officers who display character flaws such as alcohol abuse or infidelity. "I did that when I was younger, so why should I punish them for doing the same thing?" seems to be the theme.

Ultimately, COs are charged with developing future COs. When character flaws become evident in the actions of their subordinates, commanding officers must actively engage the offenders. One of two responses is likely. If the junior officer admits fault, accepts responsibility, receives counseling, and makes corrections, the "teaching moment" will have been achieved. If, however, the officer disputes the details, argues, and deflects blame, there may be an intrinsic ethical void that must be documented. Rather than being friends or drinking buddies of the officers under their charge, COs must explicitly demand integrity from them—and mentor or document shortcomings appropriately. Otherwise they encourage the behavior we want to eliminate in those chosen for command, which ensures the cycle will continue.

Before throwing former supervisors under the bus for failing to document moral shortcomings that are doing such damage today, note that the fitness report does not facilitate such openness. The fitness-report system needs to be modified to measure explicitly what we want to see in future commanding

officers. Some believe the system is completely broken and should be rebuilt from scratch. Some have recommended incorporating elements of a "360 degree" evaluation into the fitness report process—that is, feedback from the officer's peers and subordinates in addition to evaluation by supervisors.[42] Mending all of the report's faults is beyond the scope of this article, but some discussion on the evaluation process is worthwhile.

Part of the fitness report's problem is rooted in the zero-defect culture discussed earlier. Even a slightly less than glowing fitness-report narrative can be career ending. It is very difficult for reporting seniors to make the best stand out without killing the runners-up, and it is extremely difficult for selection boards to determine who is best. The 360-degree evaluation, however, is not the answer. Its value is in the self-awareness it provides to officers, allowing them to compare their own views of themselves to those of seniors, peers, and subordinates; in the context of this article, there is no indication that a 360-degree format would more effectively identify officers predisposed toward personal conduct prejudicial to command. None of the flag officers interviewed for this study supported wholesale changes to the fitness report system, and all believed that the reporting senior is the correct person—not peers or subordinates—to evaluate the suitability of officers for promotion and selection. However, something must be done in order to improve the fitness report's utility in screening out adverse behavioral tendencies.

Fundamental problems with today's fitness report system in identifying behavioral shortcomings are its lack of explicit evaluation with respect to ethical standards, the tendency of senior officers to reward mission accomplishment and performance regardless of personal failures, and the fact that all officers from ensign to captain are evaluated on the same criteria. The fitness report grades seven quantitative performance traits: "Professional Expertise," "Command or Organizational Climate/Equal Opportunity," "Military Bearing/Character," "Teamwork," "Mission Accomplishment and Initiative," "Leadership," and "Tactical Performance." Military bearing is the trait widely considered to be the category for documenting issues concerning physical fitness and body composition (i.e., body-mass index), although by regulation (and as indicated on the form itself) it also includes character, appearance, demeanor, conduct, physical standards, and adherence to Navy core values.[43] The core values include honor, and honor (as the admiral quoted above noted) implies integrity. But should we have to dig three levels to evaluate integrity, and should it be masked in the block regarded as concerning physical fitness? Not if we think it is important. In comparison, the Army's Officer Evaluation Report requires input on all seven of the service's core values as part of the character evaluation of the officer, including integrity and selfless service. Such specific evaluation of character is required to emphasize the priorities we desire in commanding officers.

Only a small percentage of commanding officers are being fired for personal misconduct, but the number is too high, and it continues to grow. Like the aviation mishap rate in the early 2000s, the magnitude of this problem can be significantly reduced, but only through elevation of this issue as a standing concern by the highest levels of leadership. While every flag officer interviewed for this article sees CO misconduct as an issue requiring attention, there does not seem to be consensus that it urgently demands transformational change. I think it does.

As noted, the Navy has taken some steps. Behavioral standards for COs are tighter than ever. The Chief of Naval Operations has issued a personal message to all commanding officers outlining standards of conduct.[44] A 360-degree evaluation has been included as part of the training process prior to assuming a command billet, as recommended by the 2004 Naval IG study.[45] Unit command-climate evaluation results are visible at higher echelons of leadership. Finally, each session of the Navy Command Leadership School, attended by officers ordered to command billets, is addressed by senior flag officers on ethical behavior. But instead of waiting for officers to be screened for command before setting and enforcing standards, we need a fundamental, enduring shift and meaningful, career-long training on integrity and character.

Several changes are recommended. First of all, leadership must elevate the priority of ethical behavior and emphasize the need for change—including the creation of a central database of every CO relieved of command owing to personal or professional failures (recording the specific cause for the dismissal as well as demographic data), to facilitate future tracking and analysis. Second, the Navy must undertake an explicit campaign to set standards of integrity and honorable behavior. Personal integrity should be at the forefront of the service's human-capital strategy and must be reflected in policy at the highest levels. Consideration should be given to expanding the Navy's core values to include explicit mention of character, or at least to a redoubling of efforts to develop the concept of honor in our service. "Honor, courage, commitment, and character" has a nice ring to it (though "integrity," "humility," "trustworthiness," and numerous other, similar terms could work in the place of "character"). This campaign should include regular, lively, and meaningful emphasis on ethical behavior for all Navy personnel.

Finally, the officer fitness report, a powerful tool for embedding an organizational culture, should be modified in format and in concept to measure explicitly what leaders want to see, specifically addressing character and integrity.[46] This change should be accompanied by training for reporting seniors on ethical expectations and on the need to include every aspect of individuals, including personal integrity, when determining who is qualified for command. With this proposal, let the debate begin on the merits of this study, on its conclusions and

recommendations, and on alternative methods of raising the bar of commanding officer behavior, integrity, and moral character.

NOTES

1. Philip Ewing, "Cruiser CO Relieved for 'Cruelty,'" *Navy Times,* 15 January 2010.

2. Andrew Tilghman, "SC CO Fired, Charged with Solicitation," *Navy Times,* 28 January 2010.

3. Philip Ewing, "CO of Attack Sub Fired for 'Drunkenness,'" *Navy Times,* 16 March 2010.

4. "MCM Crew's CO Is 21st Fired This Year," *Navy Times,* 28 October 2011.

5. Justin Cole [Lt., USN], Navy spokesman, quoted in Sam Fellman, "High-Profile Firings in the Navy on the Rise," *Navy Times,* 3 January 2011.

6. "History of the School of Aviation Safety," *Naval Aviation Schools Command,* www.netc.navy.mil/.

7. "How Goes It FY 10," *Naval Safety Center,* www.public.navy.mil/.

8. DFC (detachment for cause—not to be confused, of course, with the Distinguished Flying Cross) is an administrative procedure that releases funding to move personnel subsequent to the removal of naval officers from their current duty assignments for cause; it may not be required if suitable officers are available to relieve the officers who have been fired. See U.S. Navy Dept., *Military Personnel Manual* (Washington, D.C.: updated December 2010), chap. 1611-020, sec. 1, para. a.

9. Ibid., sec. 3.

10. The author found news releases clarifying the causes of DFCs at the following news websites: *Navy Times* (www.navytimes.com), *Stars and Stripes* (www.stripes.com), *Virginian-Pilot* (www.pilotonline.com), and *San Diego Union Tribune* (www.signonsandiego.com).

11. U.S. Navy Dept., *Report on Commanding Officers Detached for Cause* (Washington, D.C.: Naval Inspector General, 15 November 2004) [hereafter Naval IG study], executive summary.

12. Ibid., pp. 9–10.

13. Ibid.

14. Ibid., p. 13.

15. Kevin Eyer, "How Are the Mighty Fallen?," U.S. Naval Institute *Proceedings* 137/1/1,295 (January 2011), p. 21.

16. Ibid.

17. U.S. Navy Dept., *Naval Operating Concept 2010* (Washington, D.C.: 2010), p. 9.

18. U.S. Defense Dept., *National Military Strategy of the United States 2011* (Washington, D.C.: Joint Staff, 2011), p. 4.

19. Barrett Values Centre, *America's Values: Results from the Barrett US National Values Assessment 2009 2010,* available at www.slideshare.net/.

20. Eyer, "How Are the Mighty Fallen?," p. 22.

21. Philip Zimbardo, *The Lucifer Effect: Understanding How Good People Turn Evil* (New York: Random House, 2007), pp. 7–8.

22. Ibid., p. ix.

23. Dean C. Ludwig and Clinton O. Longenecker, "The Bathsheba Effect: The Ethical Failure of Successful Leaders," *Journal of Business Ethics* 12, no. 6 (1993), p. 265.

24. U.S. Navy Dept., *U.S. Navy Regulations* (Washington, D.C.: 1990), sec. 802, para. 1.

25. John Dalberg-Acton, 1st Baron Acton, *Essays on Freedom and Power* (Boston: Beacon, 1949), p. 364.

26. John Lehman, "Is Naval Aviation Culture Dead?," U.S. Naval Institute *Proceedings* 137/9/1,303 (September 2011), pp. 40–46.

27. Erik Slavin, "How Would Admiral Nimitz Have Been Dealt with in Today's Navy?," *Stars and Stripes,* 16 May 2010.

28. Donnie Horner, "A Failure of Leadership: Broken, Bullying Command Structure May Be behind Surface Fleet's Many Problems," *Navy Times,* 23 March 2009, pp. 38–39.

29. Eyer, "How Are the Mighty Fallen?," p. 24.

30. Ibid., p. 23.

31. Uniform Code of Military Justice, 64 Stat. 109, U.S. Code, Title 10, chap. 47, art. 134; *Manual for Courts-Martial, United States* (Washington, D.C.: 2008, as amended through 2011), para. 62, p. IV-114 (adultery), and para. 83, p. IV-127 (fraternization).

32. H. Norman Schwarzkopf, in *Quotes for the Air Force Logistician,* ed. James C. Rainey et al. (Maxwell Air Force Base, Ala.: Air Force Logistic Management Agency, December 2006), vol. 1, p. 48, available at www.aflma.hq.af .mil/.

33. Michael Josephson, "The Six Pillars of Character," in *Making Ethical Decisions* (Los Angeles: Josephson Institute of Ethics, 2001), available at josephsoninstitute.org/.

34. Manuel Velasquez et al., *A Framework for Thinking Ethically* (Santa Clara, Calif.: Markkula Center for Applied Ethics, 2009), available at www.scu.edu/.

35. Ibid.

36. Ibid.

37. Ibid.

38. John P. Kotter, *Leading Change* (Boston: Harvard Business, 1996), p. 21.

39. William J. Lynn III, Deputy Secretary of Defense, memorandum, "Ethics, Integrity and Accountability," 21 December 2010, Washington, D.C.

40. U.S. Army Dept., *Army Operating Concept 2010* (Leavenworth, Kans.: 2010), pp. 34–37.

41. In 2006 and 2007, the executive officer (XO) of USS *Enterprise* (CVN 65) produced and broadcast over the ship's closed-circuit television videos with sexual and homophobic content and innuendo that many of the crew found offensive. These videos became the focus of a media uproar, by which time the officer had assumed command of *Enterprise.* He was relieved in January 2011 after a Navy investigation and board of inquiry.

42. Richard H. Rosene, "Naval Leadership Assessment and Development" (Strategy Research Project, U.S. Army War College, Carlisle, Pa., 2005), p. 12.

43. U.S. Navy Dept., NAVPERS [Naval Personnel Command] Form 1610/2 (Rev. 8-10), "Fitness Report & Counseling Record (W2–O6)," available at www.public.navy.mil/. See block 35.

44. Sam Feldman, "CNO, Other Leaders Underline Command Conduct Standards," *Navy Times,* 18 July 2011.

45. Naval IG study, p. 18.

46. For discussion on embedding mechanisms and organizational culture, see Craig Bullis, "Self-awareness: Enhancing Strategic Leader Development," in *Strategic Leadership: The General's Art,* ed. Mark R. Grandstaff and Georgia Sorenson (Vienna, Va.: Management Concepts, 2009), p. 30.

BOOK REVIEWS

HOW SENIOR LEADERS VIEW THE WORLD

Saunders, Elizabeth N. *Leaders at War: How Presidents Shape Military Interventions*. Ithaca, N.Y.: Cornell Univ. Press, 2011. 320pp. $35

In today's political environment, military intervention is frequently debated. These discussions often bring to light interesting points of agreement and perhaps surprising instances of disagreement. In the end, it is with the president that the final decision rests. Elizabeth Saunders explores the rationales that U.S. presidents have used for deciding whether or not to initiate military interventions. Dr. Saunders, a graduate of Yale, now teaching at George Washington University, advances a thesis that the model of intervention depends mainly on a president's formative ways of thinking about foreign policy. While it may seem that these views would follow party lines, Saunders shows that this is not necessarily true. On one hand, the internal approach focuses on how the foreign state is organized and follows the transformative model. In contrast, the external approach looks at states' outward behavior and uses a surgical strike–type model to coerce change in behavior. The author chose to examine Dwight D. Eisenhower, John F. Kennedy, and Lyndon B. Johnson for two important reasons. First, among the three a consensus would be expected based on the prevalent Cold War mentality and context. In fact, these three did not follow in lockstep. The shared case of Vietnam, the second reason for the author's selections, highlights their differences.

Eisenhower was an externally focused president; if states' external policies were successful, he chose largely to ignore internal issues in those same states. A decreased priority on conventional forces translated under Eisenhower to less investment in transformative capabilities. Lebanon was his only overt intervention; Eisenhower did not intervene in Vietnam in 1954 or in Iraq in 1958. In contrast, Kennedy sought to influence states' domestic institutions. His predetermined agenda, based on his congressional career, explains his choice and method of intervention in Vietnam. This theme held true with the murder of Ngo Dinh Diem in 1963, which preceded Kennedy's own assassination by only a few weeks. Johnson, despite his obvious ties to Kennedy, was an externally focused president as regarded foreign affairs. Saunders highlights that while this diverges from his transformative

domestic agenda, it explains Johnson's expansion of the Vietnam War in such a different direction from Kennedy.

The well-researched text concludes by looking beyond Vietnam at how well the pattern holds under different circumstances and time periods, to include the Iraq war. Saunders's framework categorizes presidents as belonging to either of two ideal types. While this may hold from a strictly political science view, it falls short of the reality of history. For this reason, the book will appeal more to political scientists or those seeking model-centric explanations of events. This work should also have strong appeal for strategists and people serving on planning or policy staffs. Understanding how senior leaders view the world is often as significant as factual knowledge of a given situation when providing recommended courses of action.

LT. COL. FREDERICK H. BLACK, JR., U.S. ARMY
Naval War College

Marrin, Stephen. *Improving Intelligence Analysis: Bridging the Gap between Scholarship and Practice.* New York: Routledge, 2011. 192pp. $130

A former CIA analyst turned scholar, Stephen Marrin attempts to bridge the gap between intelligence studies as an academic discipline and intelligence as a bureaucratic function. His analysis grounded in the intelligence literature, Marrin provides readers a good overview of such intelligence-studies classics as those of Sherman Kent, Roger Hilsman, and Richards Heuer, along with more contemporary work by Roger George, James Bruce, Richard Betts, and Amy Zegart. Marrin certainly

displays a penchant for the academic that is informed by his former role as an intelligence analyst. He believes "intelligence scholarship can provide knowledge and insight useful for the analytic practitioner; so useful in fact, that it will help improve the quality of the resulting intelligence analysis."

With such a goal, Marrin offers six ways to improve intelligence analysis, but it is unclear how he derives these. Marrin does not draw his conclusions from known cases of highly publicized intelligence assessments. In the case of Iraq, it would have been useful to illustrate why the State Department's Bureau of Intelligence and Research had a better answer on the status of Iraq's weapons of mass destruction program than the Defense Intelligence Agency. Had Marrin tested his advice against known intelligence failures or drawn from assessments of failed analysis, his advice would be more convincing.

With intelligence increasingly public and used to justify or explain foreign-policy decisions, it seems one more piece of advice Marrin could offer is how to incorporate public discussions or open sources into analysis. Fortunately or not, the intelligence community does not have a monopoly on the "facts," so discussing the ways in which analysts can more readily connect with scholars and the private sector would be useful.

To be fair, the book is focused on intelligence analysis, but it seems to ignore how, why, and where facts are collected. In an era when both scholars and private citizens have access to information, it is important that Marrin address the epistemological underpinnings of what is being analyzed. There is a logical and important

relationship between collection and analysis that is in need of further study.

In spite of the book's shortcomings, Marrin offers readers a look at what a junior CIA analyst does and offers a sketch of how to move beyond the "generalized intuition" that often afflicts intelligence analysis. His discussion of improving intelligence analysis through empathy is interesting and has implications for personnel recruiting. In fact, this slim volume should be valued by human-resources departments and senior managers as they prepare for the next reorganizations of their agencies.

DEREK REVERON
Naval War College

Rickards, James. *Currency Wars: The Making of the Next Global Crisis*. New York: Penguin Group, 2011. 304pp. $26.95

Is the United States now engaged in a currency war? Are we involved in an international competition of currency devaluation that will impact America in seldom-studied ways that are critical to its defense? James Rickards suggests that we are, and that today's currency war could be as devastating to national security as any kinetic war.

James Rickards is a counselor, investment banker, and risk manager with over thirty years of experience in capital markets. He advises the Department of Defense, the intelligence community, and major hedge funds on global finance. He served as a facilitator for the first-ever financial war games conducted by the Pentagon.

Rickards argues that currency conflicts should and must interest our military leaders. Such conflicts can and should be prepared for, because the cheap-dollar policies of both the present and immediate past administrations portend a dollar crisis. Rickards argues that policy makers have lost the enormous national-security advantages that dollar hegemony affords, by adopting weak-dollar policies.

In part 1 Rickards discusses Pentagon-sponsored "war" gaming in 2009, using rules of engagement (ROE) in which the only "weapons" allowed were currencies, stocks, bonds, and derivatives. Because the specific ROE were unrealistic, however, the results were inconclusive, although useful for future simulations. Then, in part 2, the author delves into historical accounts of what he calls "Currency War I" (1921–36) and "Currency War II" (1967–87). Rickards argues that we have now entered "Currency War III," the three primary combatants being the United States, China, and Europe. He argues that there are four possible outcomes of Currency War III: a move to multiple reserve currencies, with the dollar playing a much smaller role; an International Monetary Fund–controlled world money, called "Special Drawing Rights"; a return to the gold standard, at a substantially higher gold price (the prospect endorsed by Rickards); and chaos. This last possibility and the associated dollar collapse appears most likely to the author.

It is unfortunate that Rickards did not include any reference to Edward S. Miller's *Bankrupting the Enemy: The U.S. Financial Siege of Japan before Pearl Harbor* (Naval Institute Press, 2007), written by a skilled financial analyst who discusses in great detail how the Franklin D. Roosevelt administration used dollar hegemony to block Japan

from world financial markets. One could argue that Currency War I culminated on 25 July 1941 with Executive Order 8832, which froze Japanese financial assets. Dollar hegemony was an essential national-security tool used to deprive Japan of the resources needed to wage war. Miller's work is a useful illustration of the utility of a strong dollar.

In summary, Rickards provides an excellent account of the currency wars. He provides information that should be at the fingertips of every national security planner.

EDWARD FULLER, *Incline Village, Nevada,* and ROBERT C. WHITTEN, *Cupertino, California*

Leffler, Melvyn P., and Jeffrey W. Legro, eds. *In Uncertain Times: American Foreign Policy after the Berlin Wall and 9/11*. Ithaca, N.Y.: Cornell Univ. Press, 2011. 243pp. $19.95

This collection of ten essays focuses on the American government's foreign policy through three administrations after the fall of the Berlin Wall on 9 November 1989, and also after the terrorist attacks of 11 September 2001. Editors Melvyn Leffler and Jeffrey Legro examine these events from the perspectives of both the policy makers who were active in Presidents George H. W. Bush's, Bill Clinton's, and George W. Bush's administrations and scholars who have analyzed the government's actions. Government response to these events provides strong examples of how the United States reacts in times of uncertainty. The editors chose the Berlin Wall and 9/11 because both events impacted the global order to an extent requiring a complete reexamination of the nation's foreign policy.

The chapters written by scholars provide excellent background, discussing the situations before, during, and after the events. However, the chapters written by government officials involved in policy decisions greatly enhance and increase the success of this work. The collaborators from these administrations have yet to publish their individual memoirs, making their perspectives not only unique but refreshing.

In his essay, "Shaping the Future: Planning at the Pentagon, 1989–1993," Paul Wolfowitz, Under Secretary of Defense for Policy during George H. W. Bush's administration and U.S. Deputy Secretary of Defense during George W. Bush's administration, discusses how defense decisions made at the end of the Cold War influenced decisions after 9/11. His analysis of the similarities between strategic decisions made in 1989 and 2001, as well as of the impact that the 1989 decisions had on 2001 strategy plans, is one of the most interesting parts of this book. Eric Edelman also does this especially well in his "The Strange Career of the 1992 Defense Planning Guidance," in which he compares the 1992 Defense Planning Guidance to 2002's National Security Strategy. He served George W. Bush as Under Secretary of Defense for Policy, as well as Principal Deputy Assistant to the Vice President for National Security Affairs.

John Mueller, who holds the Woody Hayes Chair of National Security Studies at the Mershon Center, takes an approach different from those of his fellow collaborators in "Questing for Monsters to Destroy." He adds 2 September 1945, the end of World War II, and the Korean invasion by the North Koreans on 25 June 1950 as

equally important events for American foreign policy in times of uncertainty.

One of the major considerations for both policy makers and scholars is the impact these events had on the military. Whether to increase or decrease the active forces was a complicated issue that caused disagreement among government officials in both 1989 and 2001. Readers of this journal will find particularly interesting the varying opinions regarding the military, especially in light of currently anticipated force restructurings and budgetary constraints.

While each chapter can be read on its own, an author sometimes refers to another chapter, establishing a continuity that may be lost or underappreciated otherwise. This is especially true for essays written by policy makers. The editors are to be congratulated on a timely and helpful volume that not only studies American foreign policy in the recent times of uncertainty but provides food for thought for the uncertainty of now.

NORAH SCHNEIDER
Salve Regina University

Diamond, Larry, and Marc F. Plattner, eds. *Democratization in Africa: Progress and Retreat.* 2nd ed. Baltimore, Md.: Johns Hopkins Univ. Press, 2010. 360pp. $30

In some ways, publishing a book that purports to capture contemporary African political trends, particularly involving the "progress of democracy," faces the same basic problem as do books attempting to explain state-of-the-art computers. Both information streams are now flowing so quickly that the truth you write about today may be very different from that of tomorrow. In fact, the African scholar has even harder going than his information-systems contemporary, because unlike computer technology, the course of democracy in Africa frequently changes direction and from time to time even reverses itself.

The editors of *Democratization in Africa: Progress and Retreat* are, as the title indicates, well aware of this challenge. This is not surprising. This volume is part of the International Forum for Democratic Studies' Journal of Democracy book series, and both Diamond and Plattner have edited numerous volumes.

The book is well written, well researched, and well organized. The reader is first treated to a selection of seven readings, all looking at themes involving "progress and retreat." The remainder of the book is divided into three sections, covering West Africa, East Africa, and southern and central Africa. Given the events in North Africa, the lack of coverage along Africa's Mediterranean shore is regrettable and underscores the point about "lag time."

In general, the first section of the book is thought provoking and arguably the most useful. The topics are broad, and their panoramic view allows the authors to chart the many directions of emerging trends. For example, John Clark of Florida International University argues that the military coup as an instrument of regime change is in decline. While certain events indicate that the end of the African military coup is nowhere near in sight, in the main it seems that Clark is correct.

Despite the editors' best efforts, shelf life remains a problem. Although updated for this new edition with new information, many of the book's chapters were written far enough in the past that the

situation itself is out-of-date. Despite the book's 2010 publication date, twenty-one of the twenty-four essays here were originally published between 2007 and 2009. Not all these essays are "expired," Clark's being a case in point. However, the careful reader is forced to spend far too much time checking other sources to learn the actual current "state of play." In some cases, however, such as Côte d'Ivoire, the changes from the time of initial publication to the present is extreme. In others, such as Zimbabwe, current events have not called the author's findings into question.

In the end, despite powerful writing, careful scholarship, and the best of intentions, *Democratization in Africa* is too much of a "fly in amber." Teachers, students, and lay readers alike would be better advised simply to subscribe to the *Journal of Democracy*. For a slightly higher cost they would reap much greater gain.

RICHARD NORTON
Naval War College

Cohen, Eliot A. *Conquered into Liberty: Two Centuries of Battles along the Great Warpath That Made the American Way of War.* New York: Free Press, 2011. 405pp. $30

The American way of war—a product of two centuries of war with . . . Canada? How can that be? Civil War history and the experience and history of World War II have driven out of our minds a truth known to James Fenimore Cooper, Francis Parkman, and Kenneth Roberts. The American colonies, thereafter the United States, fought battle after battle with France, Britain, and Canada throughout most

of the seventeenth century and until the early nineteenth century. The place of these battles was then called the Great Warpath, stretching from Albany to Montreal and Quebec.

American readers who pick up Eliot Cohen's *Conquered into Liberty* will most likely be embarrassed by learning how much they do not know (or only vaguely remember) about American war fighting in the colonial and early national periods. However, by the time the first chapter, about the Schenectady raid of 1690, is finished, American readers will feel embraced, as though part of their American selves has been returned. Non-Americans will be surprised at first, and by the end of the book astonished.

Cohen teaches strategic studies at the Johns Hopkins School of Advanced International Studies, and he was a senior adviser to the secretary of state on strategic issues from 2007 to 2009. This book is a military history, as good a one as might ever be done. As a historian, Cohen's strongest suit is that he treats war as it is made by political and military leaders, by the regulars (and irregulars and Native Americans), and by "leaders and managers who got things done." By the last he means those (mostly citizen-soldiers) who improvised in combat and managed to supply forces under nearly impossible conditions. His insights regarding these sorts of men make up a large part of his understanding of what the "American way of war" is about. Cohen quotes Germany's Field Marshall Erwin Rommel to affirm that what was an eighteenth-century American quality has endured—the American speed of adaptation to armored warfare, Rommel wrote, is explained "by their extraordinary sense for the practical and the material and

by their complete lack of regard for tradition and worthless theories."

American wars along the Great War-path, Cohen reminds us, were parts of European wars. The Atlantic Ocean more linked us to Europe than it insulated us from it. Moreover, these wars exposed us to a full range of seventeenth-to-nineteenth-century European warfare, from set-piece battles to what could be called un-conventional and secret warfare. They also brought the full horror of war to us. Cohen explodes the contemporary European notion that the United States did not become "the territory of war" or exposed to terror until 2001. Indeed, terror in the form of murderous raids on New York and New England villages marked much of its colonial period.

Among many other things, Cohen argues that the American appetite for the kind of unconditional surrender pursued by Franklin Roosevelt in World War II had its grounding in the eighteenth-century American intention to destroy the en-emy polity that was Canada. More than that, America's wars to attach Canada to itself were wars for the freedom of that polity. Cohen says, "If any countries have ever been 'conquered into liberty,' as the Continental Congress had written to the doubtful *habitants* of Canada in 1775, they were Germany, Italy, and Japan, occupied and transformed by armies that combined, in paradoxical degree, thoroughness in defeating an enemy and an unlimited, even naïve, commitment to liberating him."

Cohen's book is an astonishingly good read in addition to being highly thoughtful and often revelatory.

KEN JENSEN
McLean, Virginia

Matzke, Rebecca Berens. *Deterrence through Strength: British Naval Power and Foreign Policy under Pax Britannica.* Lincoln: Univ. of Nebraska Press, 2011. 320pp. $45

Historians have long argued about the true mechanism behind a ninety-year period of relative peace in Europe, a period that began with the end of the Napoleonic wars and became known as the *Pax Britannica.* Over the years critics have questioned both aspects of this term—whether the period was actually as peaceful as its title suggests and whether that peace really was, in large part, due to Great Britain's overwhelming and imposing com-mercial, industrial, financial, and naval might. Through a searching analysis of political decision making during three different crises within an eight-year period, Rebecca Matzke's book, itself a developed and published version of the author's Cornell University dissertation, seeks to add weight to the notion that Britain did indeed use the strength and versatility of the Royal Navy as an effec-tive deterrent force during this time.

The author explains that on three sepa-rate occasions between 1838 and 1846 (Canadian trade and border disputes with the United States, 1838–42; the Syrian crisis, 1840–41; and the first Opium War of 1839–42), British politi-cians, in particular Lord Palmerston, were not afraid to threaten the use of, or to use, naval power to further discrete British interests on the world stage and to coerce and influence the activities of their main rivals in Europe. In each case, while the immediate aim was obviously to benefit British regional activities, each was undertaken with an eye to preserving the broader peace

and stability of the international order as a whole. In other words, Britain's defensive "status quo" policy was implemented by operationally offensive threats or means. Furthermore, Matzke clearly shows that the British politicians well understood that if they failed to respond to some of these lesser challenges (the Chinese opium war being a prime example), over time they risked weakening their ability to influence their major adversaries in the future, in situations where the stakes might be higher.

During the course of her analysis, Matzke takes issue with established scholarship holding that the relative inactivity of the Royal Navy during this period was indicative of its comparative weakness within Europe as a whole. On the contrary, she depicts an early Victorian navy that was well up to the task, possessing shipbuilding, logistics, and manpower support superior to that of any competitor. It was this depth of capability that represented its major coercive value, particularly to the European rivals, often allowing what she terms demonstrations of Thomas Schelling's "skillful nonuse of military force." Moreover, the British instinctively knew all this, giving them great confidence in their brinkmanship with rivals. The case of the successful coercion of France in the Egyptian/Syrian crisis is a notable example.

Matzke's work is meticulously researched, using a wide array of contemporary archival material that focuses on the collected thoughts and writings of the main players involved, material taken from their personal papers, letters, and diaries. The weakness in her work lies in the admittedly implicit assumption that this short period can be taken as truly illustrative of the situation throughout the whole of the *Pax Britannica*. Arguably, Matzke has found a narrow historical period where thesis and facts align, but she is less convincing over the broader time frame, and more work would likely be necessary to settle this point decisively. Less important, but nonetheless still of concern, is her rather rosy picture of the reliability of the steamships of the day. As John Beeler has forcefully demonstrated, truly globally deployable, oceangoing steamers would have to wait until the late 1880s to be realized; their limitations until then, in terms of maintenance requirements and support while deployed, facts of which navies were only too well aware, do not come across well. That said, this is an important work that successfully advances the study of British naval policy into an earlier period. When taken together with the more established scholarship of the late Victorian and Edwardian periods, it moves us closer to a more complete understanding of British efforts to wield naval power in support of a global free-trading system. As such, it has timeless relevance.

ANGUS K. ROSS
Naval War College

Kleinen, John, and Manon Osseweijer, eds. *Pirates, Ports, and Coasts in Asia: Historical and Contemporary Perspectives.* Singapore and Leiden: ISEAS Press and International Institute for Asian Studies, 2010. 312pp. $74

Liss, Carolin. *Oceans of Crime: Maritime Piracy and Transnational Security in Southeast Asia and Bangladesh.* Singapore and Leiden: ISEAS Press and International Institute for Asian Studies, 2011. 446pp. $82.35

These two books from the Institute of Southeast Asian Studies Press share one single characteristic—a long delay between authorship and publication. This has no appreciable effect on Kleinen and Osseweijer's edited collection, based on a 2005 conference, but it ill serves Carolin Liss.

She evidently completed her book in 2006. Since then, however, various maritime-security initiatives in the region whose births she observed, including the various Malacca Strait patrols and the ReCAAP information exchange, have matured. It would have been interesting to have her views on the decline in major incidents that gathered pace starting in 2005—as to the degree to which they contributed to this decline, and what caused the recent modest uptick in numbers.

This is a disappointing shortcoming, because her survey up to 2006 adds much useful detail to what are now a number of well-established themes. Her contributions are particularly welcome in two areas, first on small-scale piracy. There she advances a persuasive argument that the general and substantial increase in fishing-boat numbers and the use of more sophisticated search equipment beginning in the 1950s (which resulted in widespread overfishing) and, within that overall picture, the malign effects of large and sophisticated foreign ships operating illegally contributed, possibly significantly, to the rise of piracy everywhere from the Philippines to Bangladesh. Also welcome is her critical examination of the political, practical, and moral effects of substituting private security companies for government-provided security. Among several observations none is more germane than that private security would be unnecessary

if governments had more interest in protecting maritime trade and made a better job of it when they try. This point has relevance to the waters off Somalia as well. If Liss misses anything, it is that governments prior to the modern naval era expected individual ships to look after themselves and that the return of piracy at the end of the twentieth century is producing an edging back toward a similar expectation.

Kleinen and Osseweijer's book is the fourth in a series from ISEAS that has focused primarily on modern piracy in Southeast Asia. In contrast to its predecessors, half the book is devoted to historical cases. It contains a number of noteworthy contributions to the literature on piracy studies, ranging from an excellent chapter by one of the editors, John Kleinen (on the inapplicability of Eric Hobsbawn's radical and romantic thesis that bandits could be Robin Hoods), to the historical experience of piracy in Asia. Robert Antony's detailed study of the frontier town of Giang Binh adds to our knowledge of the late-eighteenth-century southern Chinese "water world," which was first explored by Dian Murray.

The majority of the essays, however, concentrate on waters between the southern Philippines and Borneo, centered on the Sulu Archipelago. James Warren adds to his indispensable work on the Sulu Zone with a chapter on the workings of the Sulu slave market between 1800 and 1850. Esther Velthoen examines Dutch attempts to tame coastal raiding up until 1905, efforts that have some remarkable similarities to Roman attempts to curb Cilician piracy. Stefan Amirell describes the region between 1959 and 1963, when Britain was left as the sole colonial

power, struggling to contain an upsurge of piracy following the withdrawal of the Americans from the Philippines and the Dutch from Indonesia. Two complementary studies of the contemporary situation, one by Carolin Liss, from the perspective of Sabah, and the second by Ikuya Tokoro, from the perspective of Sulu, complete this examination of a region where piracy was, and to an extent remains, a way of life for marginalized communities.

MARTIN N. MURPHY
Washington, D.C.

OF SPECIAL INTEREST

THE EDWARD S. MILLER RESEARCH FELLOWSHIP IN NAVAL HISTORY

The Naval War College Foundation intends to award one grant of $1,000 to the researcher with the greatest need who can make the optimal use of the research materials for naval history located in the Naval War College's Archives, Naval Historical Collection, Naval War College Museum, and Henry E. Eccles Library. Further information on the manuscript and archival collections and copies of the registers for specific collections are available on request from the Head, Naval Historical Collection, Naval War College (e-mail: evelyn .cherpak@usnwc.edu). This information can be found on the website of the Naval War College (www.usnwc.edu), where there is a convenient link to the guides and registers for that collection (www.navaldocuments.org).

The recipient will be a research fellow in the Naval War College's Maritime History Department, which will provide administrative support during the research visit. Submit detailed research proposal that includes a full statement of financial need and comprehensive research plan for optimal use of Naval War College materials, curriculum vitae, at least two letters of recommendation, and relevant background information to Miller Naval History Fellowship Committee, Naval War College Foundation, 686 Cushing Road, Newport, R.I., 02841-1207, by 1 September 2012. For further information, contact the chair of the selection committee at john.hattendorf@usnwc.edu. Employees of the Naval War College or any agency of the U.S. Department of Defense are not eligible for consideration; EEO/AA regulations apply.

RECENT BOOKS

A selection of books of interest recently received at our editorial office, as described by their publishers:

Peritz, Aki, and Eric Resenbach. *Find, Fix, Finish: Inside the Counterterrorism Campaigns That Killed Bin Laden and Devastated Al-Qaeda*. New York: Public-Affairs, 2012. 308pp. $27.99

"Two intelligence experts with unique access to inside sources reveal the fascinating story behind the evolution of America's new, effective approach to counterterrorism."

Eder, Mari K. *Leading the Narrative: The Case for Strategic Communication.* Annapolis, Md.: Naval Institute Press, 2011. 126pp. $24.95

"A primer on the art and science of strategic communication, this work offers a solid foundation in communication strategies that is both practical and theoretical. Like no other communications expert, Mari Eder provides useful advice on the tactics, techniques, and procedures necessary for successful media relations, campaign planning, crisis management, and strategic communications."

Delgado, James P. *Silent Killers: Submarines and Underwater Warfare.* New York: Osprey, 2011. 264pp. $24.95

"Few places on the planet maintain a mystery as deep and enduring as the world beneath the waves. In this book, James P. Delgado presents a detailed, stunningly visual, examination of the history and development of the submarine and its role in naval warfare, from the first practical experiments with submersible craft to the development of the modern nuclear submarine."

FUNDAMENTALS OF WAR GAMING

The War Gaming Department of the Naval War College has issued a reprint of the third edition (1966) of Francis McHugh's classic work, with a new foreword and minor corrections. The book describes the fundamentals of war gaming, its history, and some of the techniques employed. While intended primarily for the use of resident students at the Naval War College, the book is also a source of background information for other military officers, researchers, and the broad community that makes use of gaming techniques. Purchase a copy from the Government Printing Office online bookstore, at bookstore.gpo.gov/.

REFLECTIONS ON READING

Professor John E. Jackson is the Naval War College's manager for the CNO's Navy Professional Reading Program.

I t's not just *what* you know but *whom* you know. Among the great pleasures of life are the friends and characters you meet along the way. But even the most worldly and traveled individuals are limited in their ability to come to know the humble, the near-great, and the great personalities of their age. They can, however, vicariously meet personalities from today, and from history, through the power of the written word. Hundreds of colorful characters inhabit the books of the CNO's Professional Reading Program. The paragraphs that follow provide a glimpse of some of them.

> In October 1918 a German corporal had been temporarily blinded by mustard gas in a British attack near Comines. While he lay in hospital in Pomerania defeat and revolutions swept over Germany. The son of an obscure Austrian customs official, he had nursed youthful dreams of becoming a great artist. Having failed to gain entry to the Academy of Art in Vienna, he had lived in poverty in that capital and later in Munich. Sometimes as a house-painter, often as a casual laborer, he suffered physical privations and bred a harsh though concealed resentment that the world had denied him success. Such were the early fortunes of Adolf Hitler.

To learn more about the factors that shaped the personality of one of the world's most destructive leaders, read *The Gathering Storm,* by Winston Churchill.

To take another example:

> At twenty-four, [Porter] Halyburton was one of the younger American POWs in Vietnam. His six-foot frame, short brown hair, and wholesome good looks fit the prototype of the dashing fighter-jock whose love of danger and combat had been immortalized in film and literature. But Halyburton was also introspective and artistic, the product of a small college town that had nurtured his intellectual and creative pursuits. He wrote poems, carved wooden statues, and read widely on history and culture. He was also a family man, having married his college sweetheart. The couple's baby daughter was born four weeks before he left for Vietnam. He was lucky to be alive. On October 17, 1965, his F-4 Phantom jet was shot down forty miles

northeast of Hanoi, killing the pilot in a fiery explosion. He soon learned that the price of survival would be high.

Discover more about the courage and faith that helped this officer survive the hells of North Vietnam prisons by reading *Two Souls Indivisible,* by James S. Hirsch.

Here is another:

Not all Quakers failed to be impressed by the arguments against the peace testimony. . . . One of these renegade Quakers was a forty-two-year-old Philadelphian ship-builder named Joshua Humphreys. . . . Like many professional shipbuilders, Joshua Humphreys had never been to sea, and by his own admission he had never even seen one of the great European battleships. But he had designed, built, or repaired perhaps three hundred merchantmen in the course of his thirty-year career, and he knew far more about marine architecture than the captains who took his creations to sea. . . . Joshua Humphreys proposed, in short, to build exceptionally large, heavily armed, fast-sailing frigates.

Understand more about the architect of America's first navy by reading Ian W. Toll's *Six Frigates.*

Yet another:

When [Commander Ernest E.] Evans arrived at the Seattle-Tacoma shipyard to over-see the fitting out of the brand-new USS *Johnston,* DD-557, he impressed his crew immediately with the substance of his will. At the ship's commissioning ceremony . . . he informed his raptly attentive audience: "This is going to be a fighting ship. I intend to go in harm's way, and anyone who doesn't want to go along had better get off right now." As if to underscore the invitation, he added, "Now that I have a fighting ship, I will never retreat from an enemy force." Something in the tone of his voice told his listeners that he was deadly serious.

Reach across the decades to meet Commander Evans in James D. Hornfischer's *The Last Stand of the Tin Can Sailors.*

And finally:

Even after [Ernest] Shackleton became an explorer famous for his incredible stamina, he would speak with pride of how he made it through his difficult initiation to life on the sea and seemed always to carry some sympathy for the suffering apprentice he had been. Years of unhappy apprenticeship had hardened him and, at the same time, made him more compassionate toward those who became ill, miserable, or homesick. He learned lessons that he never forgot: that a good boss could make the burden of work seem lighter, that refusing to use the best tools available unfairly burdened workers, and that one person could change an entire work environment.

Meet Shackleton and his crew by reading Margot Morrell and S. Capparell's *Shackleton's Way.*

Fascist leaders, war heroes, ship designers, destroyer skippers, and arctic explorers are only a handful of the characters you can meet within the pages of the books in the CNO's Professional Reading Program. We invite you to get to know them all and allow them to help you see a larger world.

JOHN E. JACKSON

(with assistance from Commander Dan Dolan, USN)